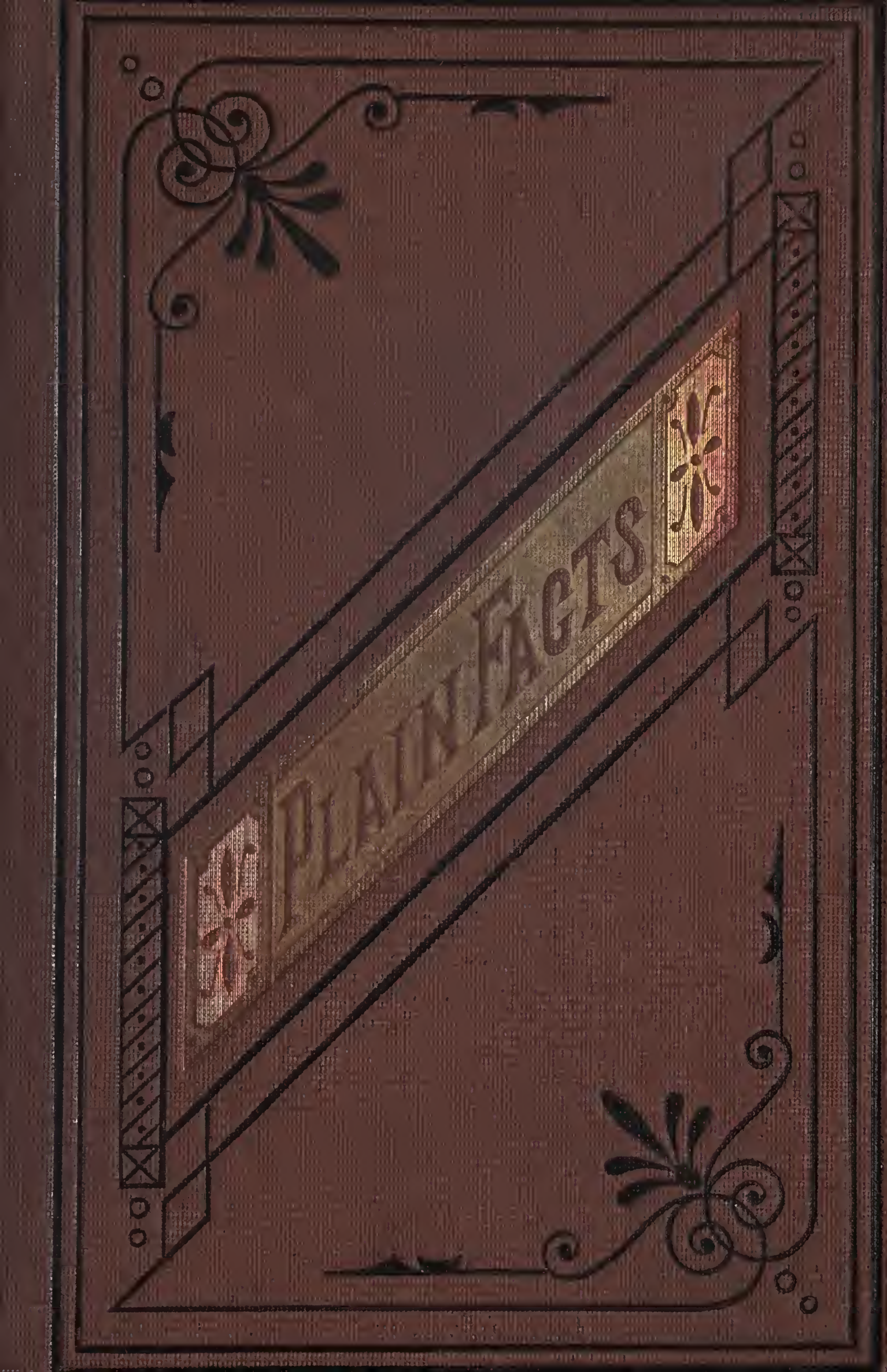
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PLAIN FACTS

FOR

PRACTICAL PEOPLE.

A STOREHOUSE OF VALUABLE INFORMATION,

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Every class of Useful Facts connected with Physical or Moral Health; every variety of Information affecting Home Life or Domestic Economy;

ALSO,

THE USAGES AND REQUIREMENTS OF POLITE SOCIETY:

TOGETHER WITH

Valuable Suggestions to Business Men, and Practical Advice to all Persons interested in the Sanitary Regulations of Towns and Cities.

306,D

PHILADELPHIA:
DEVLIN, DICKEY & CO., PUBLISHERS.

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PREFACE.

AS the work has been prepared with special reference to the wants of the family, it aims to furnish just that information which will prove of value in every home. Among its contents will be found directions for Arranging and Decorating Apartments; for the Selection of Carpets, Furniture, etc.; for the Preservation of Health, the Management of Children, the Choice and Preparation of Food, as well as for the proper and pleasant performance of every household duty.

Believing that elegance and utility are not incompatible, and that Personal Accomplishments aid us in passing that social examination which all are compelled to undergo, we have presented the merits of the several acquirements classed as such; while their assistants, the Toilet, the Art of Dressing well,—which includes the Laws of Color,—the Rules and Ceremonies of Polite Society, and the Art of Conversation, have not been overlooked.

As rational amusement is essential to health, and the right toy at the right time as important a principle in parental government, as the right man in the right place in state or national, we have given a number of Elegant Pastimes for ladies, and Parlor Games and Outdoor Sports suitable for children.

There is no home into which sickness will not come; and as the recovery of a patient depends almost as much upon good nursing, as upon the skill of the physician, surely all should learn how best to perform those numerous kind offices which the sick

demand at our hands. We have therefore given a description of a Model Sick-room, and pointed out the various duties which devolve upon the nurse. The subject of Disinfection, upon which so much indifference or ignorance prevails, has also received that consideration which its importance demands.

In order to extend its sphere of usefulness, a great many subjects of general interest have been given, also Valuable Tables of Statistics, Dates of Discoveries, etc.; thus rendering the volume of permanent value as a book of reference: the whole constituting a Vast Fund of Practical Information, to which almost every department of human learning has contributed, and which will prove acceptable to every class of readers.

The volume contains a very carefully prepared Index, embracing over Fourteen Hundred Separate Headings, an examination of which will convince the most skeptical that a tithe of its merit has not been told.

PLAIN FACTS

FOR

PRACTICAL PEOPLE.

1. Letter Writing.—The art of writing a correct and appropriate letter, is of so much importance in every department of life, as to render it well worthy of being assiduously cultivated by every person. Time and thought are as necessary in this department of composition as in any other, and the pleasure which a well written communication affords should stimulate the writer to improve this talent. Much of the appropriateness of private letter-writing depends upon the tone which characterizes the epistle. Thus, to a person occupying a superior position in life to the writer, or removed to a distance from him by age or other distinction, the tone should be respectful and deferential; while to correspondents on an equality with the writer, the tone may be more familiar. Letters of friendship should be free and chatty, just as though the two persons were absolutely talking with each other. "I love talking letters dearly," said the poet Cowper, and most persons will agree with him. The talent displayed in writing a letter about nothing, however much it may be despised, is not without its merit and good results; by the exercise of this talent, persons are enabled to afford pleasure and gratification to those with whom they correspond, while others, who cannot be persuaded to write without they have some special information to impart, often cause great anxiety and disquietude to anxious friends, and gain the character of being thoughtless and unfeeling. The style of letter-writing should be easy and unaffected; repeated literary quotations, involved sentences, long-sounding words, and scraps of Latin and French, are highly objectionable, and generally regarded as cloaks of ignorance. The mechanical execution should be in keeping with the style; fairly and legibly written, without interlineations or blots. When there are a number of subjects to write upon, the writer should make a note of them, so that he may take them, one after the other, in the order in which they should come. After a letter is written it should be carefully read over, so that any existing errors may be corrected, and the punctuation supplied. When a person is writing a letter, he is more intent upon *what* he shall say, than *how* he shall say it; and numberless errors, therefore, are liable to creep in, which require especial supervision. The crossing of letters should always be avoided; it is an absurd custom, which is apt to imperil the meaning of the writer, and to cause

the reader much annoyance. And finally, remember that what is committed to paper is generally preserved, and may, at any time, be made public. Therefore, never write, even to the most intimate friend, anything which you would be ashamed that the world should see.

2. Business Letters.—Letters relating to business matters, should be clear, concise, and straightforward; and solely devoted to the subject in hand. It should be particularly borne in mind that dates, amounts, and other important items, should be stated and written with such perspicuity as to prevent the possibility of any misunderstanding. The handwriting should be legible, and abbreviations rarely had recourse to. When a person has a business letter of importance to write, he should previously collect his ideas, so that the statements he may make shall appear in their natural order, and the communication as a whole be a clear exposition of the subject upon which it treats. Failing to do this, the chances are that the writer will forget some important facts, or express himself so vaguely and incoherently, as to render his communication unintelligible. There cannot be a doubt, that a man's business letters display, to a great extent, his general aptitude for business pursuits; and if he would have his business qualifications favorably estimated, he must, himself, furnish the credentials.

3. Legal Importance of Letters.—As a great many important transactions are carried on chiefly through the medium of letters, they have by custom become to be regarded as legal testimony; and in disputed questions, either the originals of letters, or their verbatim copy, are unquestionably received as evidences of the facts to which they relate. It is essential, therefore, that copies of letters relating to important matters should always be taken; they should also be copied into a book kept expressly for that purpose, in their regular order, so that in the event of any letter being referred to, it may be done more readily, and also prove by the relative position it occupies in the book, as regards date, that it is the genuine copy of the letter sent at the time represented. The posting or delivery of letters is another important feature in correspondence, and for this purpose a book should also be kept in which the letters so posted or delivered should be entered, with the signature of the person who charged himself with the delivery attached; by this means a double clue is furnished in the event of any question arising respecting the receipt of certain communications, inasmuch as one book is found to contain the copy of the letter, and another book has the entry of its transmission under the same date. In communications of very great moment it is always better, where practicable, to send the letter by hand, with instructions to the bearer to deliver it only to the person to whom it is addressed; under this circumstance the clearest and most straightforward evidence is furnished of the delivery of the letter. The same degree of importance also attaches to letters received. These should be folded in two lengthwise, indorsed with the writer's name and address, and the date of receipt, and deposited in some place in such order that any particular letter may be referred to at a moment's notice.

4. Answering Letters.—Every letter, not insulting, merits a prompt reply. Delay is frequently attended by serious consequences, and at all times it displays an amount of ill-breeding and disrespect, which no one can afford to be charged with. In replying to a person on a variety of subjects, the correspondent's letter should lie before the writer while he is answering it, and each question replied to in the order indicated therein. When the answer is finished, it should be read, together with the communication received, so as to insure a full and correct reply being sent.

5. Hints to Letter Writers.—We subjoin a few hints which letter writers generally would do well to attend to:—

6. THE HEADING.—At the head of your letter in the right-hand corner, put the name of your TOWN, or POST-OFFICE, and the COUNTY, and STATE in which it is located; with the month, day of the month, and year underneath. We naturally look at the heading of a letter to see how our reply shall be addressed, and if the writer has failed to inform us, his letter must remain unanswered. It is not, therefore, a mere matter of form, or convenience; it is absolutely neeessary.

Examples:

NEW CASTLE,
Lawrence Co., Pa.,
April 5, 1873.

ELM GROVE P. O., CASS CO., KY.,
January 3d, 1873.

---

134 BLANK ST., CHICAGO, ILL.,
February 4, 1873.

"GRAND HOTEL," ST. LOUIS, MO.,
March 26th, 1873.

7. THE ADDRESS.—The address of a letter is placed on the line below the date, at the left-hand side.

Examples:

MESSRS. JONES & JOICE,
44 Blank St., Boston:
Gentlemen,

REV. JAMES LAMONT:
Rev. and dear Sir,

NETTIE C. HAINES:
My dear Niece,

MRS. ELLEN SMITH:
Dear Madam,

JAMES BLACK, ESQ.:
Dear Sir,

ALEXANDER CRAIG, M. D.:
My dear Doctor,

8. THE SUBSCRIPTION.—This is the sentence at the close, which contains the terms of affection or respect, and the NAME OF THE WRITER.—To which, if necessary, a distinguishing term, as, farmer, teacher, etc., may be added.

Examples:

Yours truly,
JNO. B. BROWN,
"Drayman."

I am, dear Sir,
Very respectfully yours,
HENRY MILLER.

Your kindness will ever command the gratitude of
Yours most respectfully and truly,
JAMES DUPONT.

With love to all, I am as ever,
Your affectionate daughter,
MATTIE.

That you may unite in yourself the admirable virtues of generosity and economy, is the earnest wish of
Your affectionate aunt,
HESTER CHAPONE.

With my best wishes for your welfare, I remain
Your most obedient servant,
THE AUTHOR.

9. THE SIGNATURE.—The name should be written so as to indicate the sex, and to some extent the relative position of the writer. It is frequently impossible to determine either, as the following will show: J. B. Camp, may mean John B. Camp, or Julia B. Camp. Mary A. Wise, may mean Miss Mary A. Wise, or Mrs. Mary A. Wise. Mrs. E. Gray, may mean the wife of Mr. Gray, or it may mean his widow. Therefore, unmarried ladies should give the first or Christian name in full, and when writing to strangers the title Miss, should be prefixed. A wife should give the Christian name of her husband, a widow her own, and both should prefix Mrs. to the name. Thus, Should Miss Ella Jones marry Mr. James Johnston, she would now write, Mrs. James Johnston; should Mr. Johnston die, she would then write, Mrs. Ella Johnston.

10. THE SUPERSCRIPTION.—This is the direction on the outside or envelope, and consists of the name, and title—or distinguishing term—of the person addressed; with the name of the Town, County, and State, in which he lives. The importance of writing the name of town, county, and state IN FULL, will be realized when it is stated, that in 1872 more than four hundred and twenty-four thousand letters were sent to the "Dead Letter Office." When writing to a person in a city, give the name of the street on which he lives, and the number of his residence.

11. STAMP YOUR LETTERS.—Always stamp your envelope, at the upper right-hand corner. If writing to a stranger for information, or on your own business, be sure to inclose a stamp to pay return postage.

12. Money Orders.—Money can be sent to any part of the country with absolute safety, by obtaining a Money Order, for which the fees are:

On $10 or less, 5 cents; over $10, and not exceeding $20, 10 cents; over $20, and not exceeding $50, 25 cents.

No order issued for more than $50. Money Orders can be obtained only at designated Money Order Offices.

13. Registered Letters.—The system and care with which registered letters are transmitted and delivered, renders them very safe as a means for sending moderate sums of money.

It costs 15 cents extra, besides the regular postage, to register a letter. Letters may be registered at any Post-office.

14. History of the Spices used in Cookery.—How many housewives know anything of the botanical history, or chemical properties of the condiments used to season the food, of which they daily partake? We fear there are but few; and for this reason, we place before the readers of "Plain Facts," a short account of the various substances; which we hope will prove both interesting and useful.

15. ALLSPICE.—The berry of a species of myrtle tree, in the West Indies. It combines the flavor of cinnamon, nutmegs, and cloves, hence its name. Its agreeable taste and aroma causes it to be frequently employed for domestic purposes; and a few drops of its oil or essence are sufficient to impart a flavor to mulled wine, gravy, or made dishes. This essence may be made as follows:—Bruise one ounce and a half of allspice, and steep it in a pint of diluted alcohol, or whiskey for ten days, occasionally shaking, then pour off the clear liquor and bottle for use.

16. CINNAMON.—This spice is the inner bark of a delicate tree, the *Laurus Cinnamomum*, a native of Ceylon, though cultivated in Malabar, and other parts of the Indian peninsula. The tree grows to the height of twenty-four or thirty feet, its leaves are oval, and from four to six inches long. The flowers stand on slender footstalks, are of a pale yellow color, and produce a fruit which, in shape and size, resembles the acorn. The cinnamon is harvested twice a year; in April and November. The part of the tree selected are branches of three years

growth, which are cut off, and the outside cuticle carefully scraped away. After this the inner bark is removed, and exposed to the sun to dry, which gives it the curved or quilled appearance, as seen in the shops. The bark, leaves and roots, contain an essential oil, upon which its flavoring properties depend. From the high price of cinnamon it has become the general practice to substitute the bark of cassia. Cassia is, however, not only thicker and coarser than cinnamon, but its fracture is short and resinous, and its taste is more biting and hot, whilst it lacks the peculiar flavor of cinnamon. The thickness of cinnamon seldom exceeds that of good drawing paper.

17. CLOVES.—The clove is so called, from its resemblance to a nail. They are the product of an aromatic plant, a native of the Malacca Islands. The bush grows to the height of four or five feet, and at the extremity of the branches a number of flowers are produced, which are at first white, then green, and ultimately red. Cloves are the unopened flower-buds of the tree. These buds are carefully gathered and dried, and thus exported. They contain an essential oil of a very pungent quality, on which their efficacy depends.

18. GINGER.—The root-stalk or underground stem of a plant, which is a native of the mountain of Gingi, in Hindoostan, whence its name. It was carried from India to Cayenne and the West Indies, where the principal part of the ginger we receive is cultivated. There are two kinds of ginger; but the difference consists chiefly in the mode of preparing it. White ginger consists of the best pieces, with the outer skin scraped off, well washed, and dried in the sun. The white ginger is the strongest and best flavored. Black ginger is the inferior parts, which have only been scalded before being dried. Good ginger should be compact and heavy.

19. MACE.—A well known spice, forming the inner envelope of the growing nutmeg. When the capsule of the nutmeg bursts—which it does, like the husk of a filbert, when the fruit is nearly ripe—it discloses a bright scarlet network, investing the whole nut in a thin, fibrous membrane. This inner coat or tunic is the mace, which is eventually peeled off and dried, when it loses its bright color, and becomes of a reddish yellow. The mace is regarded as the most choice of all the spices, and accordingly always realizes a high price.

20. MUSTARD.—The plant that yields this universally known condiment belongs to the same order—the *Cruciferæ*—that yields all our cabbages and horseradish. There are two varieties, the black, and white; the former is usually ground for culinary and domestic purposes. Both varieties contain a large proportion of fixed oil, upon which the pungent properties of the plant entirely depend.

21. NUTMEG.—This is the fruit of the same tree that yields the mace. The tree is a native of the Malacca Islands, and especially of the island of Banda, in the Indian Ocean. It rises to the height of thirty or forty feet, and has wide spreading branches. The nut is enveloped by a delicate network, of mace, and the whole protected by a firm fibrous coat, like the husk of a walnut.

22. THE ECONOMICAL USE OF NUTMEGS.—If a person begin to grate a nutmeg at the *stalk* end, it will prove hollow throughout; whereas the same nutmeg, grated from the other end, would have proved sound and solid to the last. This circumstance may be thus accounted for. The centre of a nutmeg consists of a number of fibres issuing from the stalk, and its continuation through the centre of the fruit; the extremities of which fibres, though closely surrounded and pressed by the fruit, do not adhere to it. When the stalk is grated away, those fibres, having lost their hold, gradually drop out, and the nutmeg appears hollow:

as more of the stalk is grated away, other fibres drop out in succession, and the hollow continues through the whole nut. By beginning at the other end, the fibres above mentioned are grated off at their core end with the surrounding fruit, and therefore do not drop out or cause a hole.

23. PEPPER.—This is the ripe fruit of a shrub, growing in several parts of the East Indies. The principal varieties are the black, white, and guinea or capsicum pepper. Black pepper grows in clusters of twenty or thirty together, or else hangs in bunches like currants. The berry, at first green, becomes red as it ripens, when it is gathered and exposed to the sun to dry. Under the great heat of a tropical sun, the pepper soon loses its bright color, and becomes of a dark brown, nearly approaching to black. This, when well grown and dried, is the strongest of all ordinary peppers.

White pepper is the most esteemed of the three, is less pungent than the black, though certainly the purest spice, and is merely the black pepper denuded of its husk. To prepare white pepper, the largest and soundest of the berries are first collected, then thrown into sea water for some days, taken out and rubbed in canvas, to remove the husks; they are then dried in the sun, and carefully packed for exportation.

Cayenne pepper is the powdered pods and seeds of the capsicum spices.

24. Salt.—This compound—for it is not a simple body, but is composed of two elements, chlorine and sodium, hence it is called by chemists, the chloride of sodium—is one of the most widely diffused and important, which the earth affords for the use of man. Salt is found pure or native in the earth, in some countries (Rock-salt), where it is mined or quarried out. The most celebrated mines are those of Cracow, in Poland; and Cheshire, in England. In the former, the stratum or layer of salt, is estimated to be twelve hundred feet thick. Salt also exists in solution in sea-water (Bay-salt), in the proportion of four ounces to the gallon. But the chief part of the salt of commerce is produced by evaporating the water of saline springs. Millions of bushels are thus manufactured, annually, in the United States. The appearance of salt varies; and this is regulated by the rate at which evaporation is conducted. When boiled down quickly, a small-grained salt is obtained, such as is used for the table; when evaporated slowly, a larger and harder grained salt is produced, which is generally preferred for preserving meats, as it dissolves more slowly.

25. THE USE OF SALT AS A CONDIMENT,—or as an addition to food, is attended with the most beneficial effects. Its immediate office is to soften and dissolve the food, and this renders the process of digestion more perfect; it forms, moreover, one of the constituents of the blood, and of the body generally. If salt be denied, the digestion is weakened; the general tone and nourishment of the body are impaired, and worms are, in consequence, likely to be generated in the intestines. Salt, therefore, ought to be an addition to the food of all, and to children, especially, attention should be paid in this respect; and for their use, bay-salt will be found the most suitable, as it contains all the mineral elements of sea-water, and is almost as efficacious when regularly used as sea-air. It is, however, a very different thing, to eat salt with food and to live upon fish or meat which has been salted. In the latter case, certain chemical effects are exerted upon the meat and its nutrient constituents, by the salt, which modify considerably the nutriment afforded to the body.—*See, Salting Meat.*

26. Care of the Finger Nails.—The state in which the nails of the hand are kept, affords an unerring indication of delicacy and cleanliness, or the contrary. Whenever the hands are washed, the nail brush should be used, until the nails become perfectly clean. The nails should be kept properly trimmed and cut, and this will

not occupy many minutes in the course of the week. The proper way of cutting them is to clip the sides, and bring the top part to a rounded point. A person should be cautious, however, not to cut too close to the quick, and never to cut the scarf skin, or nail springs will be produced. When nail springs are detected, they should not be torn forcibly out, as a whitlow may thus be caused; the finger should frequently be soaked in hot water, and the nail spring gradually removed as it becomes loosened. The white spots seen on the nails are caused by blows and other injuries. There is no remedy for these defects, but as the nail grows they will disappear. The habit of biting the nails is one of the most offensive that can be imagined, and the effects produced very repulsive to the sight. When this is a trick of youth, the offender should be persistently punished until the bad habit is eradicated. With grown-up persons, a moment's consideration ought to be sufficient to produce a cure. The whiteness of the nails is considered a beauty. This is effected by brushing the nails with lemon-juice after they have been cleaned; then washing them with clean cold water, and finally wiping them dry. Where, however, the nails have been greatly neglected, the following remedy will render them white: Take of diluted sulphuric acid two drachms; tincture of myrrh, one drachm; spring water, four ounces; mix these well together. Cleanse the nails with white soap and water, then dip them in the wash, and afterwards wipe them dry.

27. Leaf Impressions.—To take perfect impressions of the leaves of plants, the following process should be adopted: Hold oiled paper in the smoke of a lamp, or of pitch, until it becomes coated with the smoke; to this paper apply the leaf of which you wish the impression taken, having previously warmed it between your hands, to render it pliable. Place the lower surface of the leaf upon the blackened surface of the oiled paper, in order that the numerous veins which are so prominent on this side may receive from the paper a portion of the smoke. Lay a paper over the leaf, and then press it gently upon the smoked paper, either with the fingers, or, better still, with a small roller, covered with woollen cloth, or some soft material, so that every part of the leaf may come in contact with the smoke on the oiled paper: a coating of smoke will thus adhere to the leaf. Then remove the leaf carefully, and place the blackened surface on a sheet of clean white paper, covering the leaf with a clean slip of paper, and pressing upon it with the fingers on the roller as before. Thus may be obtained the impression of a leaf, showing its perfect outlines and veins, more accurately than in the most careful drawing.

28. To Clean Hair Brushes.—As hot water and soap very soon soften the hair, and rubbing completes its destruction, use soda, dissolved in cold water, instead; soda having an affinity for grease, it cleans the brush with little friction. Do not set them near the fire, nor in the sun, to dry, but after shaking them well, set them on the point of the handle in a shady place.

29. Junket.—A preparation which is usually, made as follows: Put warm milk into a bowl; turn it with rennet; then put some scalded cream, sugar, and cinnamon on the top, without breaking the curd; which put into a close net, and hang it up, for the purpose of allowing the milk to drain from it, and to bring it into shape. Or, put some new milk into a basin, add to it a little rennet, and, if approved, a little brandy or rum may also be added; stir the whole well till perfectly mixed. Place it near the fire, or on a warm stove or hearth, until turned, but avoid keeping it too hot, or it will not turn properly. When turned, put sugar and grated nutmeg or cinnamon on the top, and clotted

cream, without breaking the curd; then serve.

30. German Cake.—Mix well together a pound and a half of finely powdered loaf sugar, two pounds of well-dried flour, and an ounce of caraway seeds; make it into a stiff paste, with the whites of three eggs beaten in a quarter of a pint of milk; roll it out very thin, cut it into shapes, prick, and bake upon buttered tins.

31. The Lawn.—In preparing for a lawn, the first thing is to have the ground properly graded; and unless the subsoil be a porus alluvial gravel, it should be thoroughly drained, so that the turf may be at all times comfortable and dry to walk upon. The ground should then be pulverized, the hollows filled up, stones removed, and a level surface obtained. The turf may now be laid or the grass seed sown. If seed is employed the following is a good selection, and in the requisite proportion for an acre, if the soil is good: Rhode Island Bent Grass, twenty quarts; Creeping Bent Grass, twenty quarts; Red Top Grass, eight quarts; Sweet Vernal Grass, eight quarts; Kentucky Blue Grass, six quarts; White Clover, two quarts. A light harrow should now be passed over it, in order to stir the soil gently for the seed, which should be sown broadcast when the ground is damp, passing a garden roller over it when the ground becomes sufficiently dry. Much of the fine appearance of lawns depends upon the regularity in mowing; if they are left too long in the spring before the operation is commenced, or if allowed to grow strong during summer, and more especially if not closely mown at the latest period in autumn, the growth becomes coarse, the smoothness of the surface is destroyed, and alternately the whole becomes patchy and unsightly. In dry weather, all lawns should be watered, and if a little guano and muriate of lime be dissolved in the water, it will keep the surface gently moist even in dry weather.

32. Nut-Crackers.—These simple and useful inventions are now made with oval hollows, toothed at the edges. The nut drops into this hollow, and the shell is cracked without injury to the kernel. It also takes an instantaneous hold of the nut, however large or small, and with a gentle pressure of the hand, effectually cracks it without the slightest possibility of the nut escaping.

33. To Wash Table Covers.—A bright windy day is best for this purpose. Having first taken out all the grease spots and stains, put the table-cover into a tub with clean suds of white soap and clear water, warm, but not too hot (in which have been mixed about two tablespoonfuls of ox-gall), and wash and squeeze it well. Then wash it through a second lather, somewhat weaker, of soap, but without any gall in it. Afterwards rinse it through light lukewarm suds, just tinged with soap. Instead of wringing (which will shrivel it) press out as much of the water as you can with your hands, then fold it up in a tight long fold, and roll and press it hard with both hands on a clean ironing-table, having set a tub to catch the water that drips from it during the process. Roll it always from you, towards the end of the table. When the water ceases to come from it, shake and stretch it well, and dry it as soon as possible; but not by the fire. Go to it frequently while drying, and stretch and shake it. While it is yet damp, take it in, spread it on an ironing-sheet, and iron it on the wrong side, pressing it hard.

34. To Boil Asparagus.—Scrape the stalks quite clean, and then let them soak in salt and water for an hour. Cut them of an equal length, and tie them up in small bundles with tape; boil them gently in three different waters till the stalks are tender, which will be in about half an hour. Dip a delicate toast, about half an inch thick, with the crust cut off, into the asparagus liquor; untie the bundles;

lay the asparagus upon the toast, and serve with melted butter in a sauce boat.

35. Exercise—Is essential to the healthy performance of the functions of both body and mind. Without it, the frame becomes contracted and enfeebled; the internal functions of the body deranged, and the brain lethargic and incapable of any great mental effort. With it, the machinery of life goes on with vigor and regularity, and the mind is stimulated to healthy action. With persons whose occupation is sedentary, the taking of regular exercise, at stated periods, is absolutely necessary to prevent them from suffering from dyspepsia, and a number of painful disorders that follow in its train. The precise amount of exercise required, depends, in a great measure, upon a person's strength, and his general habit of body; but under ordinary circumstances, every person should pass at least two hours daily in entire open air exercise; nor is it wise for persons in generally robust health to refrain from taking out of door exercise because the weather is inclement; with proper precaution, the frame may be protected against the external influences of the elements, and under this condition the exercise imparts almost as much benefit as though the weather were fine. On such occasions the delicate may take exercise within doors, selecting a large room for the purpose, with the windows open, and walking backwards and forwards for an hour or more. Females, from education and inclination, are apt to neglect this important duty. But were they to attend to it, not only would they derive considerable bodily and mental benefit, but they would bestow additional grace and elegance on their movements, and promote a more perfect development of their figures. Neither age nor sex is exempt from this salutary law of nature; we are all formed with certain limbs and muscles, which obviously demand exercise by which they may derive an amount of nourishment sufficient to enable them to perform their functions effectively; and if this necessity is disregarded, it will entail, sooner or later, a long train of ills, which are the more to be deplored because they may be so easily prevented. The time for taking exercise must, in many cases, be regulated by a person's avocations; generally speaking, however, especially in large towns, the earlier part of the day is the most suitable, as the air is then purer, and the frame more active and vigorous. It should also be borne in mind, that violent exercise, either immediately before or after a hearty meal, is liable to produce injurious effects.

36. Breakfast Rolls.—To two pounds of flour, put a teaspoonful of salt, a quarter of a pint of fresh yeast, and as much water as will make a batter. Stir this well till it is smooth, and let it stand covered before the fire to rise for two hours. Add as much more flour to it, which you should have rubbed down with the butter you mean to put to the rolls. Work the dough very smooth, divide it, and mould it into rolls; bake them in tins.

37. Night Dress.—Upon retiring to rest, the whole of the apparel worn during the day should be taken off, and exchanged for a dress suitable for sleeping in. This dress should be made loose and long, and the strings, buttons, etc., should be so placed that when they are fastened they do not cause any pressure of the neck, wrist, etc. The material of which the night dress is made should be cotton, and that worn in winter should be of a stouter fabric than the one used in summer. The night dress should be changed every week, and before it is put on, care should be taken that it is thoroughly aired. The night cap is sometimes included as part of the night dress; generally speaking, this is a useless and unhealthy covering, as it generates too great an amount of heat about the head.

38. To Wash Silk Stockings.—Cut in thin bits, some white soap,

and boil it in soft water; pour a little of it into cold soft water, and wash the stockings first upon the inner side; repeat the washing, with fresh suds and water, till they are washed quite clean; turn the outside the last time of washing, and if the foot part be very dirty, rub a little of the boiled soap upon them, but not upon the legs. If the stockings are to be colored, mix the dye with a little clean suds, and dip in the white stockings; draw them out smooth, and lay them upon a sheet on a bed, with the window open, and when almost dry, lay them upon a piece of flannel, and with another bit rolled up, rub them hard and quickly one way till they are dry.

39. Choice of Paper-hangings.—The aspect, size, and general appearance of an apartment, is materially influenced by the paper on its walls; and the choice may be judiciously regulated by the following general rules: Avoid paper having a variety of colors, or a large, showy figure, as no furniture can appear to advantage with such. Large figured paper diminishes the extent of a large room, and makes a small one appear smaller. Choose nothing that appears extravagant or unnatural. Have regard to the uses of an apartment; the drawing-room should be light and cheerful, the parlor warm and comfortable, without being gloomy or sombre; bed-rooms cool and quiet, with neat, small patterns. It is also worth while to consider the decorations of the wall; gilt frames show best on a dark ground, and dark frames, such as oak, or gutta-percha, on a light ground. As regards color, pale tints will be generally found the best. Rooms hung with scarlet, are rich, but dismal and oppressive; they require, also, to be illuminated more, and at an earlier hour in the evening than lighter colors.

40. Papering Rooms.—Don't try to paper with a carpet down. Make paste, cut bordering and the paper, the day before. If the wall has been white-washed, it must be washed in vinegar, to neutralize the alkali in the lime. If papered before, and you wish the paper removed, soak with water, and it will peel off.

If convenient, provide a long board, wide as the paper, though a table or two will do. The paper must be measured, placed right side down on the board, then with a brush proceed to lay on the paste, not too thickly, but over every part, and be careful that the edges receive their share. When completed, double within three inches of the top, the paste sides being together, carry to the wall, mount your chair, and stick your three inches pasted paper on the wall at top. That holds it; now strip down the other, and see that it fits just right; if not, peel down, make right, then press to the wall from the centre right and left. Leave no air under, or when warm, it will expand, bursting the paper. The paper must be MATCHED. It will not do to measure by line, unless the walls are perfectly plumb. Small figures make less waste, and make a small room look larger. Stripes make a low room look higher, and if there are no figures between, or in the stripe to match, there is no waste, and no trouble in putting on. If a narrow border is the style, let it be bright, if the paper be neutral, but if that be bright, the border had better be dark and neutral.

If the paste be made too thick, the paper will be apt to crack and peel off; if too thin, it will saturate the paper too quickly, and make it tender in putting on. A counter duster (Brussels brush) is nice to brush the paper to the wall. White, clean cloths will do, but it will not do to rub the paper with this; being damp, the paint or color rubs off the paper. The tables must be dried each time after pasting, for the same reason. Paste under paper must not freeze, neither dry too quickly. If whitewashing is done after papering, place a shingle next to the border, or better, tack double strips of newspaper

wider than the border all around the room. No wall should be papered, when it is possible to avoid it, until it has been plastered more than a year.

41. Blanching in Cookery.—This operation is performed by putting meat, tongues, palates, etc., into cold water, when the article is gradually brought to boil, taken out and plunged into cold water, where it is left until quite cold. Blanching is intended to impart whiteness, plumpness, and softness. The operation, while rendering the meat whiter and more sightly, at the same time lessens its nutritive qualities, by abstracting a portion of the soluble saline matter which it contains, and thus deprives it of one of the principal features which distinguish fresh meat from salted meat.

42. Watercress Stewed.—The following receipt will be found to produce an agreeable and wholesome dish: Lay the cress in strong salt and water, to clear it from insects; pick and wash nicely, and stew in water for about ten minutes; drain, and chop; season with pepper and salt; add a little butter, and return it to the stew-pan until well heated. Add a little vinegar just before serving; put around it sippets of toast or fried bread. The above, made thin, as a substitute for parsley and butter, will be found an excellent covering for a boiled fowl. There should be considerably more of the cress than the parsley, as the flavor is much milder.

43. Kitchener's Zest.—A well-known sauce, used for fish, meat, etc., and made as follows: A pint of claret, a pint of mushroom ketchup, and half a pint of walnut pickle; four ounces of pounded anchovy, an ounce of fresh lemon-peel thinly pared, and the same quantity of shalot and scraped horse-radish, an ounce of black pepper and allspice, a drachm of cayenne, and a drachm of celery seed. Infuse these in a wide-mouthed bottle, closely stopped, for a fortnight, and shake the mixture every day; then strain and bottle it for use. A large spoonful of this stirred into a quarter of a pint of thickened melted butter, makes an admirable fish sauce. Or the same quantity of the zest may be mixed with the gravy of cutlets, etc., and will prove extremely savory.

44. Cautions for the Prevention of Accidents.—There are accidents of daily and hourly occurrence, which the exercise of the commonest prudence might prevent, and which we may be said to rush into through carelessness and indiscretion.

I. Where a lighted candle will not burn, animal life cannot exist. Before entering damp and confined places, therefore, it will be an excellent caution to try this experiment.

II. Never leave horses, whilst in use, by themselves, nor go immediately behind a led horse, as he is apt to kick.

III. Leave nothing of a poisonous nature open or accessible, and never fail to write the word "POISON" upon it in large letters, wherever it may be placed.

IV. In walking the streets, keep out of the line of the cellars, and avoid scaffolding and ladders; and never look one way and walk another.

V. Never meddle with gunpowder by candlelight.

VI. Lay loaded guns in safe places, and never imitate firing a gun in jest.

VII. Do not enter a room where there is an escape of gas, with a lighted candle.

VIII. When driving, keep on your right side of the road, and abate speed when approaching corners or cross-roads.

IX. Never throw orange rinds about in the streets.

X. Take great precautions with fires where children are, as this is an element that they are very fond of amusing themselves with.

XI. Do not "rake out" fires at night time; let them go out of themselves; there will be no loss of fuel, as they will support the temperature of the apartments, and be less likely to cause accidents.

XII. Never quit a room leaving the poker in the fire.

XIII. Put a wire guard before each fire on going to bed.

XIV. Turn off gas at the meter the last thing at night.

XV. Look both ways before you cross a street; and when you know you have to cross, take the first opportunity of doing so, instead of waiting until you arrive at the spot where you must cross.

XVI. Never be attracted by a mob. Be assured that where there is a crowd there are already too many for any good purpose; therefore pass on.

XVII. Never be induced to venture upon platforms hurriedly erected by needy people, to let out places at small fees for viewing public spectacles.

XVIII. Keep matches in their safes, and never let them be strewn about.

XIX. Never alight from an omnibus or street car while they are in motion, nor enter with the point of your stick or umbrella upwards.

XX. Do not stand near a tree, or any leaden spout, iron grate or railing, in time of lightning.

XXI. When benumbed with cold, beware of sleeping out of doors; rub yourself with snow, and do not hastily approach the fire.

XXII. In opening effervescing drinks, such as soda water, hold the cork in your hand.

XXIII. Quit your house with care on a frosty morning.

XXIV. Never read in bed; besides the danger of accident, it injures the eyes.

XXV. Do not venture on the ice until you are certain of its ability to bear your weight, and avoid the parts where numbers of people congregate.

45. Flower Stands.—These articles of use and ornament may be obtained in every variety of shape and form. A handsome stand, admirably adapted for plants in pots, is made of brass wire, arranged like basket-work, and mounted upon a walnut or oak pedestal, set on castors. A shallow zinc tray is placed within, to prevent the water that may pass through the pots from falling on the carpet.

46. For Cut Flowers, one of the most suitable is made like a small pier, or centre table, in the top of which is placed a water-tight tray, with the usual provision for drawing off the water, in order that fresh may be supplied. This is covered with a portable fine brass wire grating, the meshes being about half an inch square, to support the flowers and keep them in an upright position. If moss and sand are put into the tray, they will preserve the flowers much longer than water alone. All stands for cut flowers should be provided with glass shades, to be put on at night, to secure them from the dust that must necessarily arise.

47. Artificial Coral.—This may be employed for forming grottos, and for similar ornamentation. To two drachms of vermilion add one ounce of resin, and melt them together. Have ready the branches or twigs peeled and dried, and paint them over with this mixture while hot. The twigs being covered, hold them over a gentle fire, turning them round till they are perfectly covered and smooth. White coral may also be made with white lead, and black, with lampblack mixed with resin. When irregular branches are required, the sprays of an old blackthorn are best adapted for the purpose; and for regular branches the young shoots of the elm tree are most suitable. Cinders, stones, or any other materials may be dipped into the mixture, and made to assume the appearance of coral.

48. To Clean Satin.—A quarter of a pound of soft soap, a quarter of a pound of honey, the white of an egg, and a wineglassful of gin; mix well together, and then scour the article with a rather hard brush thoroughly; afterwards rinse it in cold water, leave it to drain, and iron whilst quite damp.

49. To take Impressions from Medals.—Melt a little isinglass glue with brandy, and pour it thinly over the medal, so as to cover its whole surface; let it remain on for a day or two, until it is thoroughly dry and hardened, it may then be taken off, and will be found to represent a clear impression of the medal. It will also resist the effects of damp air, which occasions all other kinds of glue to soften and bend, if not prepared in this way.

50. The Nursery.—It will always be found better, both for the children and the family generally, that a room in the house should be set apart for the sole use of the younger members. The aspect of this room should be south-eastern, or as near that as possible, so that the fullest amount of sun, light, and air may be admitted into the apartment. The room should be situated at the top part of the house, this being not only the most healthy but the most convenient for domestic arrangements generally. The apartment should be large and lofty, and sparely furnished, so that the children will be less likely to hurt themselves when falling or running about. In fine weather the windows should be opened, and this should also be done on quitting the apartment for a time. The outsides of the windows should be guarded by strong iron bars, closely fixed, to prevent the possibility of a child falling through. The utmost cleanliness should be observed, the room being kept well scrubbed and swept, and every article in it thoroughly dusted. Certain rules should be laid down to promote the moral and physical welfare of the children; and every mother should pay a daily visit to the nursery, in order to assure herself that these rules and regulations are being carried out.

51. Nursery Maid.—The proper selection of a person for this situation is of great importance to the moral and physical training of a child. A nursery maid should have a natural fondness for children; she should be lively enough to amuse them, yet sedate enough to check herself and them from exceeding the bounds of prudence and propriety. Firmness on all important points should be united with good nature. There must also exist a vigorous state of health, and yet a lively sympathy with the ailments of the young. The age at which a nursery maid should be selected is difficult to assign. Young women are possessed of a flow of animal spirits, best in keeping with the playfulness of the child; but they are frequently wanting in steadiness. A more elderly person, on the other hand, is apt to be somewhat too staid in her demeanor, and with settled habits that cannot brook being disturbed by the pranks of the child. When these opposite qualities are found to blend in one and the same person, there should the choice be made.

52. To Remove Fruit Stains.—Hold the portion of the article stained lightly over a tub or pan, and pour boiling water over it. This must be done before any soap is applied to it. As soon as a stain is made, it should be rubbed with common salt before it has time to dry; the salt will keep the part damp till the cloth is treated as above. For stains that are of long standing, rub the part each side with yellow soap, then lay on a mixture of starch in cold water very thick; rub it well in, and expose the linen to the sun and air till the stain comes out. If not removed in two or three days, rub that off, and renew the process. When dry, it may be sprinkled with a little water.

53. Why the Wedding Ring is placed on the Fourth Finger.—The custom of placing the wedding ring on the fourth finger, is said to be associated with the doctrine of the Trinity; for, in the ancient ritual of English marriages, the ring was placed by the husband on the top of the thumb of the left hand, with the words, "In the name of the Father;"

he then removed it to the forefinger, saying, "In the name of the Son;" then to the middle finger, adding, "And of the Holy Ghost;" finally, he left it as now, on the fourth finger, with the closing word, "Amen."

54. Calisthenics.—The name given to that branch of education which relates to the healthy and graceful exercise of the body and its members. It is to be distinguished from gymnastics by the greater amount of intelligence with which it is combined. The relative position of the sciences of gymnastics and calisthenics may be illustrated thus: by means of the former a person may be brought to use a member of the body—say an arm, or a leg, or one hand—in a manner and with an effect wholly disproportioned to ordinary results; and the whole body may be rendered capable of extraordinary fatigues or labors. The latter sets out with the gradual cultivation of each member and faculty in its due proportion and with regard to its proper office; it is complete when all the elements of bodily strength and grace are immediately obedient to the will.

This is the theory of calisthenics; practically it includes the apt and ready adoption of graceful attitudes and gestures at the command of a teacher. The importance of calisthenic training is now generally acknowledged, its fundamental maxims forming the basis of all true education. A good teacher of the system will unite kindness with firmness. The lessons should be given regularly—at least once a day—at first during a short space and gradually lengthening; but should always cease with the slightest sign of fatigue in the pupils. A new position ought not to be gone into until the previous one has been successfully performed. The pupils should be made to realize the rule, that action on their part is to follow immediately upon the word of command of the teacher. Of course the exercises may be extended to any length, or may stop at a certain point, according to circumstances. It is usual to commence as follows:—

The teacher having taken a convenient place, gives the word of command; such as:—"Join heels;" "Hands down;" "Head up;" "Look before you;" "Shoulders back;" "Chest out;" "Feet outward," etc. If care be taken to avoid every awkward or ungainly gesture, these preliminary poses may be made auxiliary to the teaching of deportment. The head is next placed in various positions; the face, eyes, shoulders, arms, hands, wrists, thumbs, fingers, the chest, legs, toes, feet, and the whole trunk are then taken in the order in which they are here enumerated; and the pupil is led by easy gradations from the simplest to the most compound movements.

55. The Family Tool Chests.—Much inconvenience and considerable expense might be saved, if it was the general custom to keep in every house certain tools for the purpose of performing at home what are called small jobs, instead of being always obliged to send for a mechanic, and pay him for executing little things that, in most cases, could be sufficiently well done by a man or boy belonging to the family, provided that the proper instruments were at hand. Family Tool Chests are now manufactured at prices ranging from seven to seventy-five dollars. We give below the contents of one, valued at $12.50.

LIST OF ARTICLES.

1 2-in. Jack Plane.	1 Marking Gauge.
1 Sewing Awl.	1 Mallet.
1 14-in. Hand Saw.	1 pair Pincers.
1 Hatchet.	1 pair Pliers.
1 Ball Brace.	1 Oil Can.
6 Gimlet Bits.	1 Oil Stone.
1 Screw Driver Bit.	1 Try Square.
1 Centre Bit.	1 Screw Driver.
1 Auger Bit.	1 2-ft Rule.
1 Claw Hammer.	2 Gimlets.
1 6-in. Rasp, handled.	1 Lead Pencil.
1 Saw File, "	1 Nail Set.
1 ½ Round File, "	1 pair Compasses.
1 ½-in. Gouge, "	1 Reel and Awl.
1 ⅜-in. Chisel, "	2 Brad Awls, hd'ld.
1 ½-in. Chisel, "	1 Scratch Awl, "
1 1-in. Chisel, "	Nails, Brads, etc.
1 Hand Screw,	

56. Coriander Cordial.—To half a gallon of spirits, put half a pound of coriander seeds, quarter of a pound of caraway seeds, half a pound of sugar, and one drop of oil of orange. Make it up to three quarts with water. The coriander seed must be bruised and steeped in the spirit for ten or twelve days, and well stirred two or three times a day.

57. To Restore Black Crape.—Make scalding hot, skim-milk and water, with a small piece of glue in it. Immerse faded and rusty black crape in this for a few minutes, then take it out, clap it in the hands, and pull it dry, and it will look equal to new.

58. Lacquering.—The name given to a thin varnish applied to brass work, such as handles of locks, door plates, etc., to prevent their tarnishing. Brass work may be re-lacquered, in the following manner: The metal should be just warmed, and a lacquer laid over it evenly, with a soft brush, as follows: Put an ounce of turmerie, two drachms of anatto, and two drachms of saffron, into a pint of alcohol; agitate it occasionally during a week, and then filter it into a clear bottle. Add to this three ounces of clean seed-lac, and shake up the bottle now and then during a fortnight. For a lacquer to give tin, or articles covered with silver leaf, the appearance of brass, melt, in several vessels, two ounces of gum-lac, and eight ounces of amber; mix them well together, and add half a pound of drying linseed oil. Digest in a pint phial, a little saffron in half a pint of oil of turpentine; strain this liquor, and add to it some gum tragacanth and anatto, finely powdered. Mix this last compound with the former, and shake them well. It is by this varnish that leather is made to appear as if gilded, after it has been covered with silver leaf.

59. To Clean Lacquered Articles.—Brush them with soap and warm water, wipe them, and set them before the fire to dry; finish with a soft cloth. By this simple means may be cleaned ormolu and French gilt candelabra, branches, and lamps; mosaic gold and gilt jewelry, toys, and ornaments. Care is requisite in brushing the dirt from fine work, and finishing it quite dry. Anything stronger than soap, as acids, pearlash, or soda, will be liable to remove the lacquer.

60. Amber Varnish.—To half a pound of powdered amber, add four ounces of scio-turpentine, melted; macerate for half an hour, and add one-third of white resin, warmed, and half a pound of linseed-oil, hot.

61. Window Gardening.—In considering the culture and treatment of plants adapted for windows, it should be observed that the sort of plants most suitable will, in a great measure, depend on the aspect, and even the form of the window; also its liability to, or exemption from exposure to chilling draughts of air, and likewise on the possession or non-possession of a piece of ground, to which the florist can transfer his potted plants from the window when he pleases, so as to ensure continued successions within doors. Any one who has a parlor or drawing-room with a bow window, on the south side of the house, is almost in the favorable position of a person who has a green-house; he can regulate the temperature of the room; and as his window admits the rays of the sun from early in the morning until night, and yet can be shaded by a blind at will, he can cultivate a great variety of tender green-house plants, without any difficulty.

Among the plants suitable for windows, are some of the bulbous order, which blow early, and are easily cultivated, such as the snow-drop, spring-crocus, early tulip, hyacinth, jonquil, and narcissus. These, after flowering, should make way for others. It must be borne in mind, however, that the odors of flowers are very injurious to health, if the plants are confined with us in closed rooms; therefore, if they are to have places in bed-rooms, they should only have outside ones, which

will suit them well in mild weather. Indeed, in all cases, it will be found that, for window culture, plants, in moderate weather, will thrive better on the outer than the inner ledge of the window, or on a stage within a room during the night, when air, light, and moisture, will be as necessary to them as in the day-time.

The plants to replace bulbs, may consist of the double primrose, hepatica, anemone, ranunculus, tuberose, and candytuft. The last-named plants should be removed to outside quarters when they cease to please the eye or regale the senses, and give place to the more valued geraniums, fuchsias, perpetual roses, and sweet-scented myrtle, which will blow the greater part of the year. These plants need not be displaced at any time from the window—except to receive genial showers out of doors—as they are always ornamental, and never lose their foliage; if, however, there be a convenient place for them outside the house, their temporary removal there will invigorate them, unless in cold weather, and their place can be advantageously occupied by other plants. Carnations, picotees, ten-week stocks, double wall-flower, and Chinese rose, are desirable summer plants, and may be surrounded by the autumn-blowing campanula, petunia, verbena, calceolaria, and Chinese chrysanthemum.

The cultivation of window plants must be guided altogether by a person's extent of space within and without: if he cannot shift his plants, when out of blooming, he must be content to keep such plants as the fuchsia or the geranium, and those roses which preserve their bloom longest, and afford the greatest ornament. In cottages, however, above the lowest order, there are usually windows enough to accommodate all the kinds of plants before named, so as to keep up continued successions, more especially as the bulbous sorts will want no pot, nor need any care; when their season has passed, they may make room for others. Even a window on a north side of a lattice, will serve at all times for saxifrage, the musk plant, winter phlox, purple cytisus, and hounds'-tongue. A north window, also, will be useful in summer to preserve the bloom of the tender plants longer than would be the case if they were exposed to the stimulating effects of the sun. In no circumstances of aspect, then, is a person debarred from cultivating window plants; in any point of the compass there will be either sun or light sufficient for some sorts of beautiful and interesting flowers; and there is no month in the year in which sweet flowers or green foliage may not gladden the eyes of any person who has the command of a window.

62. INSTRUCTIONS FOR PREPARING THE SOIL.—Plants cannot be cultivated in pots with complete success, unless the soil in which they are put is suitable to their nature, and contains a considerable proportion of nourishment, as the quantity of mould in a pot is necessarily very small, and the plant in it cannot extend its roots in search of food as it does in open ground culture. It is not only necessary that the plant should have the proper kind of soil, but also that this be duly prepared before it is used, by repeatedly turning it, so that the whole shall be thoroughly and frequently exposed to the air, and the separate parts of which it is composed, perfectly blended together. This work should be done in some place where the mould will not be exposed to heavy rains. The seasons for doing this are the autumn, winter, and early spring months. Summer is not the proper period for this operation, because the heat of the season would dissipate some of the most active properties of the compost. A soil suitable for pot plants generally is a good sound loam, or garden mould, completely rotted manure, leaf mould or leaf earth, silver sand or drift sand, blended together; for some plants, the pink tribe especially, old mortar rubbish; and for other plants, as heaths, peat earth.

63. THE PROPER METHOD OF POT-

TING PLANTS.—If the plant requires to be re-potted, the mould in the pot in which the plant is, must be in a dry state, and therefore can be very easily removed. Give the pot two or three smart blows with the palm of the hand, on every side, to loosen the earth from the inside; then spread out your fingers around the stem of the plant, turn the pot bottom upwards, and the plant, with the roots and mould undisturbed, will fall into your hand. Previous to doing this, however, the pot into which the plant is about to be transferred, should be prepared, quite clean, and otherwise ready; its drainage should not only be perfect when the plant is moved into it, but should be so managed as to continue as long as possible, for the plant will speedily sustain injury when the drainage becomes obstructed; and if this be not attended to, the plant will be seriously damaged, if not ultimately destroyed. The best plan of drainage is formed of two pieces of tile, with the edge of each piece straight on one side; these two straight edges should be placed in contact over the middle of the pole at the bottom of the pot; immediately over these pieces of tile, where they meet, there should be placed an under oyster-shell, with the hollow side downwards; around and over these should be put bits of broken pots, the larger pieces below, and the smaller above; over these, some broken and partially rotted pieces of wood, such as may be found at the bottom of an old wood-stack; over these some broken dried leaves, or rough, fibrous peat; next to this the coarsest mould, then a little of the finer mould. This will fill up a third part of the pot.

When the plant is being re-potted, the roots, if they be found matted round the ball of earth, should be carefully drawn out by a smooth pointed stick, and freely cut back up to the larger roots, taking care not to injure them. If the ball of mould be hard, it should be loosened by cautiously pressing it between the fingers and the thumb. These roots must be placed regularly in the pot, and the prepared mould strewed in amongst them, and pushed down gently, where it may be necessary, with the stick, the sides of the pot being occasionally patted, to get the soil more completely among the roots and the loosened ball of earth. Care should be taken to place the plant perfectly upright, and the stem exactly in the middle. The plant should be put at the same depth in the new pot as it was in the former one. If the roots be perfectly covered after the settling of the mould in the pot, the plant is sufficiently deep. Having thus filled up with mould, press it down equally over the whole surface with moderate firmness, then moisten the mould thoroughly and gradually through the fine rose of a water-pot, with some rain water raised a little above the temperature of the atmosphere, either by exposing it for some time to the rays of the sun, or by mixing a little hot water with the cold. This finishes the potting. The plant should now be put in a sheltered situation, where it will be safe from the extremes of heat and cold, until it has recovered the effects of the operation.

64. TO OBTAIN NEW PLANTS.—August is the best month for dividing roots or taking off slips, in order to obtain new plants, and also for shifting the old plants into new pots, which should be placed in the shade until the roots have struck. Pots about seven inches deep, six inches wide at top, and four at bottom, are the most convenient in size for the plants that are to blow in the following spring. Offsets may be grouped into smaller pots until they take root, after which they will require separate pots. As a general rule, do not re-pot any plants when they are budding or in bloom, as the shifting checks their progress and deranges their health.

65. WATERING SHOULD BE CAREFULLY ATTENDED TO.—When plants are watered from a watering-pot, a sufficiency of water should be given

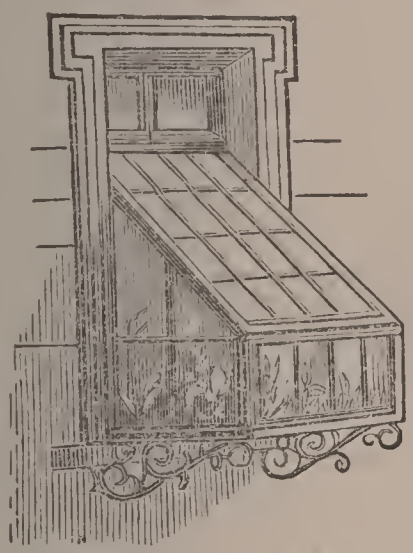
to soak the roots completely. In the case of newly-potted plants, however, a second supply of water should be withheld until the first has been thoroughly absorbed; for the roots of plants not yet established are able to imbibe moisture in but a trifling degree, therefore, the moisture not taken up by the plants, would harden the soil into a dry crust. Whenever the soil is in such a condition, it should be loosened with a convenient instrument, and a supply of suitable mould should be always ready to top-dress the sinking earth in a pot, in order that fresh nourishment should be filtered down to the roots, in place of that which they have consumed.

66. Pruning, and Destroying Insects.—In pruning, remove those buds which are growing where shoots are not wanted; cut away the worst placed branches where they are crowded or crossing each other; cut back or shorten such shoots as are disproportionately strong to those growing at the same joint on the opposite side of the branch, so that the two shoots may be brought to an equal growth. In shortening the branch, the situation of the buds must be considered just below where the cut is to be made; this should be so made, that when the buds grow to branches, they will fill up various spaces, and thus perfect the form of the plant. All hardy woody window plants should be kept in due form and vigor by stopping the buds, rather than by pruning after shoots have struck out, as the strength of the plant will be better preserved by the nipping of vegetation in its first stage, than by allowing it to grow at all. An examination of the leaves must then be made, to see if there are any green flies upon them. If only a few of the leaves are affected by them, the flies may be easily destroyed by pressure of the finger and thumb, but when they exist in considerable numbers, the plant must be fumigated with tobacco smoke. This should be repeated three times, at intervals of three or four days, the foliage being washed each time, in the way before described, on the day after fumigation. Or, the branches affected by the flies, may be dipped in strong tobacco-water, instead of fumigating the plants.

67. The Cultivator of Window Flowers, will in due time be repaid for his care, by a beautiful array of geraniums, Chinese roses, ten-week stocks, wall-flowers, heliotropes, carnations, pinks, and mignonette. Of the last-named plant, there is a superior variety, which, being longer lived, and more strongly scented than the common sort, is especially desirable for the window stand. Fuchsias and geraniums continue sometimes so long in flower, that they should have the first claim to standing room in any house where growing flowers are kept. In summer, fuchsias should be transferred to the outside of the window-sill or to a balcony, where they will continue to bloom until the frost nips them; and in order that they may not suffer from lack of moisture, the strong healthy plants should be potted in six-inch pots in a light rich soil, and these pots dropped into others just large enough to admit the space of about half an inch all round, the inserted pot standing in moss or leaf-mould, until its rim is on a level with that of the pot containing it. By this contrivance, the hottest sun will be unable to scorch the roots of the plants; they will retain moisture longer, and will flourish more luxuriantly. Carnations, and all their tribe should be carefully treated as to striking, the petals being supported either by tying the flower-stems to a stake, or by supporting them with slip cards fixed beneath them, and fastened to the stake by worsted or strips of bass matting. These cards will keep the flowers in a safe position while in bloom.

68. **The Belgian Window Garden.**—This window furnishes one of the best modes of this kind of culture. It is within reach of all, and will be understood by referring to the

engraving. It will be seen that the sill of the window is extended in breadth beyond the face of the wall of the house by brackets; two or more shelves are placed across the window, which with the sill, are covered with plants in pots. A roof of glass is hinged to the window-frame at any convenient height. These sloping roofs fall down upon a stone or wooden front, either solid or filled with glass, and are opened and shut for ventilation by raising up the bottom part of the roof, and securing it at any point of elevation desired, by a curved handle. The plants are watered and arranged from the room within, as the windows are hung on hinges in two



parts, and do not generally move up and down, as in this country. In cases where the sloping roof extends to the top of the window, as is sometimes the case, the window being thrown open, the owner can enjoy the fragrance and beauty of the plants, while they are not subjected to the dust, heat, and dry air of the room, and with the large squares of glass used, they lose little of their effect, even when the window is shut altogether.

69. To Stain Ivory.—Ivory may be stained any color, after being freed from dirt and grease, as follows:—

Black.—Wash the ivory well in an alkaline lye, steep it in a weak solution of nitrate of silver, then expose it to the light.

Blue.—Steep it in a weak solution of sulphate of indigo which has been nearly neutralized with salt of tartar.

Brown.—As for black, but using a weaker solution of silver.

Green.—Dissolve verdigris in vinegar, and steep the pieces therein for a short time, observing to use a glass or stoneware vessel.

Purple.—Steep it in a weak neutral solution of terchloride of gold, and then expose it to the light.

Red.—Make an infusion of cochineal in water of ammonia, then immerse the pieces therein, having previously soaked them for a few minutes in water very slightly acidulated with aquafortis.

Yellow.—Steep the pieces for some hours in a solution of sugar of lead, then take them out, and when dry, immerse them in a solution of chromate of potassa.

70. Selecting Furniture.—In the selection of household furniture the general aim should be to procure good articles rather than cheap ones; and to obtain useful and substantial furniture, in preference to gay and tawdry articles, proportionately worthless. Regard should be paid to its suitability for the house and room it is to occupy, and also to the general harmony to be produced by design, form, color, etc. Persons who are about to purchase furniture should be cautious in dealing with cheap advertising houses, and in every case they should be governed by their own taste, and the knowledge of what is actually required, instead of being led away by the plausible recommendations of the salesman. The durability of furniture depends in a great measure upon the manner in which it is used; if it is neglected, seldom cleaned, and left in rooms in which a fire is rarely lighted, it will soon deteriorate both in appearance and value. Much damage is also done to furniture on occasions of removing, and when this takes place, the owner of the furniture should superintend the operation, and see that the articles are carefully packed, and securely stowed away.

71. Book-Clubs.—These are associations formed for the purpose of affording extensive reading at a moderate cost. The method adopted is, for a number of persons jointly to subscribe a certain sum annually or otherwise, for the purpose of creating a common fund for the purchase of books. Each person has the privilege of proposing such works from time to time as he is desirous of having in the collection, and the books so procured are bespoke by the readers, and passed from hand to hand according to priority of claim; by this means each member is enabled to become a sharer in a number of books for the same sum that, under other circumstances, it would have cost him to secure one.

72. Almond Candy.—In a half pint of water, beat up the sixth part of the white of an egg, and pour it over a pound of loaf sugar; after standing for a quarter of an hour, let it boil for three minutes, and then let it stand on one side until the scum settles down, skim it, and boil again until it becomes very thick, then throw in four ounces of almonds, which have been dried in the oven, and sliced, mix the whole well, and continue stirring until it is done, which will be known when a spoonful placed on a plate remains in a firm mass, and does not *sink*. It must then be poured out as quickly as possible into moulds or tins, and suffered to remain until quite cool.

73. To Clean and Preserve Leather.—A mixture for cleaning leather may be made thus:—Take of French yellow ochre, one pound; sweet oil, a dessertspoonful. Mix these well together until the oil be no longer seen; then add a pound of pipe-clay, and a quarter of a pound of starch. Mix the whole with boiling water, and when cold lay it on the leather. Leave it to dry; then rub the leather well with a cloth, and afterwards brush it briskly. For hat-cases, writing-desks, and similar articles, dissolve in warm water a small quantity of oxalic acid, and wash the articles with a sponge dipped in the solution. When dry, they will appear almost equal to new. To preserve leather from the attacks of mildew, pyroligneous acid will be found serviceable, and will also recover the leather when it has been thus injured. The acid should be passed over the surface, after having expunged any existing spots by the application of a dry cloth. This remedy will prove of equal efficacy when applied to boots and shoes which are damaged in the same manner.

74. The Economy of Time.—The economy of time is the first concern in life; for, in the abstract, time is life itself, and what we accomplish and enjoy constitutes the sum that makes life happy or miserable.

In making a right use of money, man usually calculates how much he has, and what proportions of the total he can devote to those objects and necessities that belong to his purposes and his duties. He applies so many dollars to this item, and so many to another item; and by thus apportioning his means to the ends he has in view, he manages to preserve an order, and to ensure a prosperity, without which all his affairs would be in confusion, and the business of life a constant pain to him.

But there are few who make so provident an arrangement respecting the application of time. That which is more valuable than gold is less regarded than it, from the want of a due appreciation of its value.

Let a circle represent a day of twenty-four hours; let one-third of that circle be portioned off to represent the night which is passed in sleep; let four sections out of the remaining sixteen represent the hours devoted to food and to temporary relaxation during the day. There then remains four equal sections of three hours each, which constitute all the time that we have daily to apply to the active purposes of life. How many duties belong to the life of man? We cannot enu-

merate them all, because they differ in special cases. But the leading duties of life are:

To worship God.
To acquire wisdom.
To maintain health.
To cherish love.
To gain wealth.
To do good.

Now, let the dial of a day be permanently fixed upon the mind, together with these six leading duties of life, and man can at all times examine himself as to the use he is making of time, and how far, as each day advances, he has fulfilled the first, the second, or the sixth, or any other of the duties of life. He can as easily guide and stimulate himself to fulfil the objects of his existence, by simply picturing this diagram before him, as he can regulate his business appointments by looking at his watch.

75. Dandruff.—Scurf or dandruff as it is called, is generally the result of a diseased action in the cuticle of the scalp. The intolerable itching which frequently accompanies the complaint, is not the only unpleasant feature, as, to persons of any pretensions to neatness, the appearance of the white scales on the coat-collar and shoulders is very objectionable. The hair should be at once cut and thinned, the head well combed and slightly stimulated by means of a brush; the roots of the hair are then to be washed twice a day, with a sponge, and a lotion made by dissolving one drachm of carbonate of ammonia—volatile salts—in a pint of cold water.

Another excellent remedy is made by putting one ounce of sulphur in a quart of water, which must be well shaken two or three times a day for several days, and the clear liquor then poured off; the head must be washed in this every morning.

Should these means, however, fail, a little creosote ointment must be rubbed into the roots of the hair at bed-time, and well washed off in the morning; at the same time a hot bath, by exercising a beneficial action on the entire cuticle, will be found efficacious on this affection of the scalp.

76. The Use and Abuse of Corsets.—The corset is one of the most useful and necessary articles of female dress, and though many of the worst diseases of the chest have been developed, and are frequently greatly aggravated by tight lacing, the indiscriminate warfare carried on by medical men and public writers against the use, in any form, of a garb that confines the motions of the thorax, is marked by as much cant as ignorance. No medical man, whose experience has lain largely among women, and who has studied the requirements of the female system at different periods of life, would risk his reputation by such an unmeasured condemnation. That stays are necessary to a woman, after a certain stage of life, no man who is qualified to speak on the subject will deny. Stays, or rather corsets, however, are quite uncalled-for *with growing girls*, unless, indeed, there should be some natural deformity or weakness to correct. The idea that such a rigid encasement is requisite to give *contour* to the bust, and impart a graceful carriage to the figure, is equally erroneous. Up to seventeen or eighteen, or perhaps till her marriage, no young female, if she takes due care of her person, has any occasion to wear a corset for the mere sake of support and strength. Whatever is worn up to that time round the chest, requires neither whalebone nor steel, nor any tension more rigid than that afforded by strings or straps. But to the mother, who has domestic duties to perform, and children to nurse and suckle, the corset becomes an *absolute necessity*. That known as the Madam Foy corset, possesses many advantages.

77. Washstand.—For the proper furnishing of a bed-room, it is necessary to be careful in the choice of washstands. The variety of these articles of furniture is so great, that whatever be the style of room to be fitted

up, there can be little or no difficulty in selecting the right kind. For small or common rooms, the smallest and simplest kind of washstand will be the best; and, if required, it may be made triangular, so that it will adapt itself to a corner. The length should be from two to three feet, according to the capacity of the bed-room. Three feet will afford room for the soap and brush, trays, wash-bottle, etc., which are generally placed upon it.

Washstands should not be made more than twenty-eight inches high, or they will be inconvenient to those who stoop to wash the face over the basin. This is a matter which should be carefully considered in buying a washstand, as many persons do not discover the inconvenience until too late.

In washing, some of the water is necessarily spilled upon the stand, and, if the top is of wood, will in time destroy the paint. This may be prevented by covering the top with light marbled oil-cloth, which looks well and lasts a long time. The paper-hanging in the immediate vicinity of the washstand, is liable to be soiled by the soap and water; and to avoid this, a piece of paper should be pinned against the wall.

78. The Kitchen.—The following requirements in connection with the kitchen, are essential. It should be sufficiently large, and the parts conveniently distributed. It should be lofty and well ventilated. There should be good light, especially in those places where the cooking is immediately going on. It should be well supplied with water and fuel. There should be easy access to it, without passing through the house. It should be so placed that the odor of cooking cannot be perceived in the house; nor should the latter be incommoded and disturbed by the noise of the culinary operations and the servants. The appendages of the kitchen, as scullery, pantry, store-room, fuel closet, etc., should be arranged in convenient proximity.

The orderly arrangement of the kitchen itself, is a matter of the greatest importance. Every utensil and article of use should be placed so that the hand may be put upon it immediately. Kitchen utensils ought to be provided in proper abundance, as well as of suitable kinds, rather numerous than otherwise, to save the distraction occasioned by scanty supplies. The price, to a young housekeeper, of a looking-glass or lounge, would obtain all the kitchen articles necessary to good cookery and comfort; and the money thus invested be speedily returned by the saving of fuel, labor, and provisions.

The importance of cleanliness must be insisted on; and is indeed one of the first virtues of plain cooking. Cleanliness of the most scrupulous kind must be particularly observed with regard to all culinary utensils; sauce-pans, kettles, grid-irons, frying-pans, etc., to be placed away clean, and kept free from rust. Pickle-jars, fruit-cans, paste-pans, etc., to be carefully washed and wiped. Pudding-moulds and cloths, tapes, jelly-bags, tammy-cloths, and sieves, should be kept clean, sweet and dry. Kitchen-cloths to be thoroughly washed every day after dinner.

Cleanliness is applicable with equal force to provisions about to be dressed. All should be thoroughly trimmed, wiped, and washed. All refuse and noxious matters of every kind should be placed out of reach, and never suffered to accumulate; the injurious effects attending the neglect of this are incalculable.

79. The Care of a Watch.—Wind your watch as nearly as possible at the same hour every day. Be careful that the key is in good condition, as there is much danger of injuring the works when the key is worn or cracked; there are more main springs and chains broken through a jerk in winding than from any other cause, which injury will sooner or later be the result, if the key be in bad order.

As all metals contract by cold and expand by heat, it must be manifest that to keep the watch as nearly as possible at one temperature, is a necessary piece of attention. Keep the watch as constantly as possible in one position, that is, if it hangs by day, let it hang by night, against something soft. The hands of a pocket chronometer or duplex watch should never be set backwards; in other watches, this is a matter of no consequence. The glass should never be opened in watches which set and regulate at the back.

In regulating a watch, should it be fast, move the regulator a trifle towards the slow; and if going slow, do the reverse; you cannot move the regulator too slightly or too gently.

The watch-pocket should be made of something soft and pliant, such as wash-leather, which is the best.

Cleanliness of pocket and key are both important; for, if there be dust or dirt in either, it will work its way into the watch, as well as wear away the chasing of the case.

80. The "Social Circle."—In order to overcome the objections so frequently urged against fashionable parties; such as,

Wealth being made the standard of worth.

Overdress; causing unnecessary expense and waste of time.

Expensive entertainments, as regards refreshments.

Late hours; so ruinous to health and happiness.

And, that our young friends who are willing to enjoy life rationally, may not be deprived of those advantages which society alone can give; we have chosen the above title for a series of friendly parties, to be conducted according to the following rules and regulations:

FORM OF INVITATION.

Will you do me the favor of meeting here as a guest, on —— next, at 7 P. M. A few friends have kindly joined to commence occasional social parties, of which the spirit and intent will be better understood by a perusal of the annexed rules.

Yours sincerely, ——.

RULE I. That meetings be held in rotation at each member's house; for the enjoyment of conversation; music, grave and gay; dancing and reading.

RULE II. That such meetings commence at seven and end at eleven; and that members and guests are requested to remember, that punctuality has been called the politeness of kings.

RULE III. That in the social circle, demi toilet be considered the better taste.

RULE IV. That any lady violating the last rule be liable to reproof, by the lady of house.

RULE V. That members and guests are requested to bring with them their own vocal, instrumental, or dance music, and take it away with them, if possible, to avoid loss and confusion.

RULE VI. That no member or guest, able to sing, play, read, or dance, shall refuse, unless excused by medical certificate; and that no cold or sore throat be allowed to last more than a week.

RULE VII. That to avoid unnecessary expense, the refreshments be limited to cold meat, sandwiches, bread and butter, fruits, and tea or coffee.

RULE VIII. No carriages.

P. S.—To save trouble to both parties, this invitation be deemed accepted, unless declined within twenty-four hours.

81. Management of the Voice.—A weak voice is often the result of general weakness, and in proportion as the body is strengthened, the voice will become stronger. The following suggestions will greatly assist in strengthening the voice:

Be temperate in eating and drinking. Avoid causes of excitement, mental or bodily. Read or recite daily about five hundred lines, in the highest speaking tone which you can comfortably maintain. Speeches delivered in public are often marred by unpractised speakers, from the want of attention to the simplest rules, as follows:—Speak slowly,

and give every word its due emphasis. Pitch the voice in the proper key, neither too high nor too low, otherwise the whole of the speech will prove harsh and ineffective. Direct the voice to about the centre of the room, and about midway from the floor; by this means every word will reach the ears of all present.

82. Advice to Vocalists.—When about to sing, let the body be in a simple unconstrained posture. Practise two or three times a day, but at first not longer than ten minutes at a time, one of which should be before breakfast. Exercise the extremities of the voice, but do not dwell upon those notes you reach with difficulty. Open the mouth widely at all times, in the higher notes especially; open it to the ears, as if smiling. Never dwell upon consonants. When you are about to sing, read the words, and master their meaning, so as to give them the proper expression. Let every word be heard distinctly; disregard of this rule is a common fault among singers of every kind and degree. Children should never be allowed to sing much, or to strain their voices; the age of fifteen or sixteen is soon enough to begin to practise constantly and steadily the two extremities of the voice. The voice is said to have gained its greatest power at the age of twenty-eight, and to begin to decline soon after forty. Never force the voice in damp weather, or when in the least degree indisposed; persons often sing out of tune at such times, when they do not at others. Take nothing to clear the voice but a glass of cold water, and always avoid pastry, rich cream, coffee, cake, nuts, etc., when you intend to sing.

83. To Clean Point Lace.—Fix the lace in a prepared tent, draw it straight, make a warm lather of Castile soap, and, with a fine brush dipped in, rub over the point gently; and when it is clean on one side, do the same to the other; then throw some clean water on it, in which a little alum has been dissolved, to take off the suds; and having some thin starch, go over with the same on the wrong side, and iron it on the same side when dry; then open it with a bodkin, and set it in order. To clean point lace, if not very dirty, without washing: Fix it in a tent, as the former, and go over with fine bread, the crust being pared off; and when it is done, dust out the crumbs, etc.

84. Acorn Trees.—Very pretty ornaments for the parlor may be produced by setting acorns to germinate in hyacinth glasses, and placing them over the mantel-piece. Half fill with rain water a white glass, one of those usually employed for bulbous roots. Take a ripe acorn, which has been for a day or two steeped in rain water, or in damp moss or mould; with the aid of a piece of cork or cardboard, suspend the acorn about a quarter of an inch above the water. Let the cork or cardboard fit the mouth of the glass tightly, so as to exclude the air. In a few weeks the acorn will begin to grow, and the interesting process of the germination of one of our noblest trees may be watched.

85. To Remove Water Stains from Crape.—When a drop of water falls on a black crape veil or collar, it leaves a conspicuous white mark. To obliterate this, spread the crape on a table (laying on it a large book or a paper-weight, to keep it steady), and place underneath the stain a piece of old black silk. With a large camel-hair brush, dipped in common ink, go over the stain, and then wipe off the ink with a little bit of old soft silk. It will dry immediately, and the white mark will be seen no more.

86. Table Napkins.—The napkins used at dinner, and other repasts, are not only useful, but serve to decorate a table. They are usually made of diaper, and, where economy is studied, old tablecloths may be cut up for this purpose; they should be about twenty-eight inches broad, and thirty inches long. When napkins are placed on the table, they should be folded

neatly, and with taste. For keeping the napkins in proper form, a napkin press will be found very convenient.

87. Care of the Feet.—To preserve the feet in a proper condition, they should be frequently soaked and well washed in warm or tepid water. Many persons are subject to tender feet. This frequently arises from the use of thin stockings, and boots that are either too tight, or not sufficiently porous to allow of the escape of perspiration. Waterproof boots and shoes are, on this account, frequently the cause of tender feet. The best remedy for tender feet, is the immediate adoption of worsted stockings or socks, and light, easy shoes of buckskin, goatskin, or some other equally soft kind of leather. For the preservation of health, it is highly necessary to preserve the feet dry; persons who are therefore exposed to the wet, or who have much walking in wet weather, should be particular in wearing sound boots and shoes; through neglecting this precaution, many persons have brought on pulmonary complaints, which have frequently had a fatal termination.

Coldness and numbness of the feet is a complaint to which some persons are subject, especially aged and delicate persons, and those whose employment is sedentary. The best and most natural remedy for this, is exercise or friction—the former being always adopted when possible. Retiring to rest with cold feet is especially to be avoided, and persons so subject should pace up and down the room just previously to going to bed, until their feet have attained a warm glow. Where this is impracticable, owing to weakness, old age, etc., warm woollen stockings may be put on with great advantage, or the hot water bottle had recourse to. The peculiarly disagreeable odor emitted by offensive feet, may be remedied chiefly by scrupulous attention to cleanliness, and by occasionally soaking the feet in warm water to which a small quantity of chloride of lime or sal ammoniac has been added. The *nails* should be cut at least once a week.

88. Spice Box.—In culinary operations, it is essential that all the apparatus, even of the most trifling kind, should be orderly arranged, and ready at hand. With this view, a box for the several kinds of spices is indispensable, so that any or all of them may be ready for use immediately they are wanted. These boxes are generally made of Japanned tin, and divided into compartments, each holding a small can, which not only prevents the aroma of the spices from escaping, but by having each compartment clearly designated, prevents the possibility of one spice being taken in mistake for another.

89. Sewing Cotton.—Great impositions are practised by some manufacturers of sewing cotton: the length of cotton wound upon the reel being much less than that indicated by advertisement and by the label. Other manufacturers set their faces against this system, and supply the public with honestly-wound reels. The names of these manufacturers are to be found upon the reels issuing from their factories.

90. To Prepare Salt for the Table.—Take a lump of salt of the size you think proper, and if not quite dry, place it in a plate before the fire to make it so, then pound it in a mortar till it is perfectly fine; this done, fill your salt-cellars with it higher than the brim, and with the flat side of a knife that has a smooth edge, take it off and press it down even with the top. If the salt-cellars are not smooth on the top, cut it in notches; a tablespoon is the best tool to press and smooth the salt in them; or it makes them look very neat if the bottom of the salt-cellar is ornamented, and you place the bottom of one on the top of the other, for the same purpose. The salt should be in a lump, that it may be free from dirt, and should be of the finest quality.

91. The Education of Daughters.—There are few subjects so intimately connected with individual happiness and national prosperity as the education of daughters. The system of female education in this country is, with a few exceptions, unsatisfactory and defective. One branch of study is almost universally neglected, namely, *Domestic Education*. By domestic education is not meant the sending daughters into the kitchen some half-dozen times, to weary the patience of the cook, and to boast of it the next day in the parlor, but two or three years spent with a mother assisting her in her duties, instructing brothers and sisters, and taking care of their own clothes. This will make them happy wives and good ones; for, an early acquaintance with the duties of life makes them sit lightly and gracefully upon those who afterwards practise them.

But in the modern system of female education, no time or opportunity is allowed for the formation of quiet, domestic habits. Girls are sent to school until they are sixteen or seventeen, and this precious interval is, in the majority of cases, spent in acquiring the *elements* of numerous sciences, without being thoroughly acquainted with any; a smattering of French and Italian, a superficial knowledge of drawing, and the playing of half a dozen "show pieces" on the piano, form the sum total of instruction. As soon as they leave school they begin a round of balls and parties, and a series of visits to gay young friends; and in the midst of this whirl of excitement, all nobler and higher attainments are lost sight of, and nothing regarded as of consequence but parade and attraction. Thus three great evils are engendered, vanity, extravagance, and idleness; dispositions naturally good and affectionate, trained into heartlessness, and the whole course of life degraded and embittered.

All this is mainly attributable to the neglect and mismanagement of the mother, who deems it the best policy to let her daughter "*enjoy herself all she can while she is single;*" and who, instead of representing domestic life as the gathering place of the deepest and purest affections—as the sphere of woman's enjoyments as well as of her duties—teaches her to regard matrimony as desirable because a "good match" is a triumph of vanity, and it is deemed respectable to be "well settled in the world." Marrying with these feelings a woman considers herself as a sacrifice made at the altar of freedom and gaiety, and thus the word *home*, instead of being associated with all that is happy and enjoyable, means to her a species of thraldom, in which she is doomed to hide herself away from the *world*. The course thus pursued is senseless and cruel from beginning to end. Every woman expects in the natural course of events to become a wife and a mother. And if her happiness or misery in this state wholly depends—as in truth it does—upon her fitness for the duties she is called upon to perfrom, she surely ought to be instructed in those duties, by her seniors, who cannot fail to be impressed with their importance, nay, their absolute necessity.

Every mother who thus neglects her daughter's education, is guilty of a great social crime, the consequences of which will not only fall upon her own immediate offspring, but may be entailed upon generations to come. Let daughters, therefore, receive as many attainments and accomplishments as their capacities will admit of. Let them have a reasonable amount of enjoyment, and intercourse with society, but do not allow these or any other considerations to interfere with domestic education; or prevent her from fulfilling woman's noblest and most sacred mission, that of becoming a good wife and a discreet mother.

92. The Alum Basket.—Take double the quantity of water necessary to cover the frame you have made,

handle included, and put into it as much alum as the water will dissolve. Then pour it into an earthen crock, or pipkin, and let it boil slowly until it is reduced one-half. This solution should now be strained through fine muslin, and again brought to the boiling point. The frame should be then suspended from a little stick, laid across the top of the pipkin, in such a manner that both basket and handle will be covered by the solution. It must be put by carefully in a cool place, where not the slightest motion will disturb the formation of the crystals. The framework of the basket is usually made of thin wire woven in and out, but a common willow basket will do as well. But whether wire or willow, *the work should be very open.* A proper surface must now be prepared, by winding fine worsted, or coarse thread on every part of the framework. Bright yellow crystals may be produced by boiling saffron in the solution; and purple crystals by a similar use of logwood. Aniline may be used for red and green. Blue crystals may be obtained by preparing the sulphate of copper, commonly called blue vitriol, in the same manner that alum is prepared.

93. Allspice Basket.—Allspice berries should be previously soaked in brandy to soften them, and then have holes made through them. They are then strung on a slender wire, and twisted into any fanciful form. A gold bead between every two berries gives a rich appearance to the basket. Around the top are sometimes twisted semicircles of berries, from which are suspended festoons of berries, also strung on silk and drooping over the outside. The foundation may be made of any material, ornamented and lined agreeably to taste.

94. Rice or Shell Basket.—Rice or shell baskets may be made of a pasteboard frame, either white or colored, and neatly lined; it should then be covered with grains of rice, or very small shells, fastened on with gum, and arranged in picturesque figures.

95. Moss Basket.—The moss basket is made on a foundation of pasteboard, shaped round or oval, with or without a handle according to fancy. It should be neatly lined, and covered on the outside with pale green paper, in order that any little interstices among the moss may not appear incongruous. The handle should be sewn on the outside, so that the parts where it is joined may be hidden by the moss. A great variety of dry mosses may be mingled together, and will thus produce a very pretty effect. They may be fastened on with gum, glue, or paste; but, as they are apt to fall off occasionally, the safest method is to sew them on. The effect is rendered still more pleasing by placing in them colored birds' eggs, real or imitated.

96. The Clove and Bead Basket.—Take whole cloves, and soak them either in hot water, brandy and water, or brandy alone; with a fine shoemaker's awl, called a "closing awl," or with a large needle having a cork fixed at the end to protect the hand, perforate each clove, and string them on twelve pieces of fine wire six inches in length, passing two wires through each clove. When you have put two cloves on to each double wire, put on a bead of any color to fancy; then a single clove on a single wire, as it passes out from the bead; then pass each wire through a bead with the wire coming upon the left or right hand side next to it; then another clove and a bead at the end, unite the two wires by twisting a little loop in them, so that they fasten in the manner of hook and eye. The smaller these fastenings are, the neater the basket will be; and for the purpose of cutting, and turning the wires, it will be found convenient to have little cutting nippers, with a sharp point on one side, and a round one on the other, such as watchmakers use. The bottom of the basket is similarly formed, with

the exception that only *four* wires are required. When the stand is made, it is attached to the basket in the same manner as the wires are joined at the ends. These baskets may be made in any shape desired.

97. Muscle and Mind, or Working to Advantage.—The law of order requires to be duly combined with the law of work, else we shall hinder our own usefulness, and be a source of annoyance to others. When we rise in the morning to the work of a new day, unless we have some rules of action; unless we know what we have to do, and when it is to be done; unless we have the hours parcelled out in some measure, so that we need not waste large intervals in arranging and discussing; we run great risk of having our duties ill balanced—giving undue space to the work that we like, and crushing into a corner the work that we do not like.

98. PUNCTUALITY.—Time is a gift, and if we choose to undervalue and misapply our own portion, we certainly have no right to appropriate what belongs to those around us. Yet, when we forget to keep an appointment, when we arrive an hour too late for the work to be done in concert with others, we have robbed our neighbors of time that might have been usefully and profitably occupied.

99. EARNESTNESS.—Do not aim at more than you have strength or opportunity for; but what you attempt do well; it is better to do one duty thoroughly than half a dozen superficially. There is nothing too small to be done thoroughly, no work so insignificant that we can say "It is of no consequence how I do it." This thorough spirit will prevent procrastination—there will be no putting off till to-morrow the duty to be done, or the difficulty to be grappled with, which, with each succeeding day, will grow more distasteful and more burdensome.

100. PATIENCE.—If you measure your work by the work of others, you will grow impatient; they seem to do so much more, and to succeed so much better; but Providence has assigned to you one kind of work, and one kind of discipline in that work; to them it has given another; but remember that the outside may be fair, while the inside is imperfect, and the imposture must one day be detected.

101. Illuminating Gas.—Gas for illuminating purposes, is made from the bituminous varieties of coal, by subjecting it to heat in iron tubes or retorts; and collecting and purifying the gas produced. About four cubic feet of gas are produced from every pound of coal used, or one ton of good coal will produce:

		lbs.
Coke,	weighing,	1494
12 gal. of tar	"	135
12 gal. ammoniacal liquor,	"	100
9500 cubic feet of gas,	"	291
Loss (chiefly water),	"	220
		2240

A gas, which by the combustion of five cubic feet per hour, exhibits a light equal to that of fifteen sperm candles, is considered a gas of good illuminating power. Gas is sold by the cubic foot (at prices ranging from two to four dollars per thousand feet), and is measured by means of a self-acting instrument called a meter. It is generally estimated that an ordinary gas flame will consume from 1 to $1\frac{1}{2}$ cubic feet an hour.

102. HISTORY.—Gas was first used for street lighting, in London, in 1812; and its advocates, at that time, met with a great amount of opposition and ridicule. The success which attended the experiment, has now effected its adoption in every town and village of any importance.

103. ECONOMY IN BURNING GAS.—The relative amount of illuminating power in comparison with the quantity of gas consumed, depends in a great measure on the kind of burner through which the flame is emitted. The relative quality of light given from the combustion of similar quantities of gas is as follows: single-jet, 100; fish-

tail, 140; bat-wing, 160; argand, 180. If the flame smoke in an argand it is evident that some adjustment is necessary, and the gas should either be lowered or the chimney contracted, until it gives a clear cylindrical flame of three or four inches in height. In the fish-tail burner if the flame flares or makes a noise in burning, the gas should also be lowered; but to diminish either much below these points, does not effect a saving of gas in proportion to the diminution of light. Hence the important conclusion, that it is more economical when the light is too strong to procure a smaller kind of burner, or where several lights are used to put out some of them altogether, than to lower the flame on the whole. It is a fact not generally known, that the poorer the gas, the faster it will flow through the burners, and, although the meter has registered correctly, it does not follow that the consumer has received an equivalent amount of light.

104. Care of Carriages.—The coach-house should have a boarded floor, and be dry and well ventilated. It should not adjoin the stables, as the gases disengaged by the dungheaps, cesspools, or drains, have a very injurious effect upon the paint and varnish of the carriage. The carriage should not be exposed either to a too damp, or too dry situation, as from these causes the woodwork is liable to shrink or swell. The plated and brass work should be rubbed every day to prevent their tarnishing. The leathern parts require frequent oiling to preserve their tenacity. The cloths and linings of the inside should be kept free from damp, and protected from the sun; but above all, it is necessary, by frequent brushings and beatings, to keep away the moths. After the carriage has been out, it should be carefully washed and dried; cleaned, if possible, before the dirt hardens, and well sluiced with plenty of water, to prevent any sand remaining that might scratch the varnish in rubbing. Stains on the varnish may be removed by rubbing with a piece of baize or leather dipped in sweet oil, and polishing it off with flour.

105. Carriage Warmer.—This vessel may be made of zinc or block tin, and of any shape desired. An aperture is left at one corner, and fitted with a screw, into which the hot water is poured. The carriage warmer is placed at the bottom of the carriage, in such a position that the feet may rest upon it comfortably. The heat will be retained for three or four hours, and in long journeys a fresh supply of hot water may be easily obtained from houses on the road.

It may also be used in the house, as a foot warmer, and if enveloped in flannel, can be used in bed.

106. Cash and Credit.—The consideration of these two modes of payment must be understood here to apply chiefly to domestic and personal expenditure. Every person, be he married or single, be his wants few or many, is compelled to expend money for the purchase of the comforts and necessaries of life. In procuring these, the question which suggests itself is, which system of expenditure is the most prudent and satisfactory—cash or credit. To solve this problem correctly, the first principle upon which the question hangs need only be inquired into. It must be conceded, as a matter of course, that the seller of goods makes a distinction between cash customers and customers on credit; it would be unreasonable and unjust to place both on a similar footing; in what, then, does this difference consist? In this: The articles sold for cash are charged at the smallest remunerative profit; those sold for credit are set down at any price best accordant with the seller's caprices and necessities; as a general rule, the difference between cash and credit prices may be fairly estimated at twenty per cent. Again, the person who pays cash, may deal with any tradesman he thinks proper, his only object being to obtain the best value

for his money. But the person who takes eredit, is, to a certain extent, eoerced by the tradesman, and eannot deal with a rival shopkeeper without creating offence. In many instances, the person who takes credit is perfectly well aware that the articles vended to him are much dearer, and not nearly so good, as may be procured elsewhere; but with the fear of the account before his eyes, he can only utter a feeble complaint, and suffers the imposition until such time as he is able to purchase emaneipation by the settlement of his bill. Nor are pecuniary considerations the only ones in eonnection with this question. The man who pays cash has many advantages over his neighbor who deals for credit; he is freer from care and anxiety; he does not dread to meet a creditor at every turn he takes, or fear a dun in every knock; nor is he humiliated in the opinion of the world abroad, and in the eyes of his servants at home.

107. A Noiseless Way of Feeding a Coal Fire.—The noise usually made in supplying a stove or grate with coal, is sometimes very annoying; especially is this the case in the siek-room and nursery. The following remędy has been suggested: Put the coal into little paper bags, and fill a coal seuttle or box with them, ready for use. These ean then be laid quietly on the fire, and when the paper ignites, the eoal will softly settle down, and the fire be replenished in a truly noiseless way.

108. Care of Knives.—Knives may be preserved for a long time with a little care. When not in eommon use, the blades should either be rubbed over with mutton suet, or the knives kept in a wooden box containing sifted quicklime, care being taken that the blades only touch the lime. When knives are placed in hot water, the blades only should be immersed, and for this purpose, a jug or pot of the same depth as the blades of the knives should be employed. If the handles beeome loose, make a cement of briek-dust and melted rosin mixed together, and apply it to the defeetive handle. Handles of ebony should be cleaned with a soft cloth dipped in a little sweet oil; and after resting awhile with the oil on them, let them be well wiped with a elean towel. Ivory or bone handles ought to be washed with a soaped flannel and lukewarm water, and then wiped with a dry towel. To preserve or restore their whiteness, soak them occasionally in alum-water that has been boiled, and then suffered to grow cold. Let them lie for an hour in this mixture, then take them out, and brush them well with a small brush, and afterwards take a elean linen towel, dip it in cold water, squeeze it out; and while wet, wrap it round the handles, leaving them in it to dry gradually.

109. Knife Board.—The construction of a board on which to clean knives is very simple. Take a board about two feet long, ten inches wide, and an inch thick; cover this with ehamois skin; then take emery one part, croeus-martis three parts, in very fine powder; mix into a thick paste with sweet oil, and spread this on the leather, to the thickness of a penny. This kind of board gives a far superior edge and polish to knives, and will not wear the blades nearly so much as the common method of using brick-dust on a board. When, however, the ordinary briek-dust boards are used, they should be provided with a stiff brush for eleaning the forks, at one end; and at the other end should be a box, with the open end towards the hand, and a sliding lid; this should eontain a bath-brick, leathers for forks, etc. A hole should also be bored at one end, and a string inserted, by which the board may be hung up out of the way when not in use.

110. Feather Flowers.—Procure the best white geese or swans' feathers, have them plucked off the bird carefully, so as not to break the web, and free them from down, exeept a small quantity on the shaft of the

feather. Having procured two good specimens of the flowers you wish to imitate, carefully pull off the petals of one, and with a piece of tissue paper, cut out the shape of each size, taking care to leave the shaft of the feather at least half an inch longer than the petal of the flower. Carefully bend the feather with the thumb and finger to the proper shape, being cautious not to fracture the web.

111. To Make the Stem and Heart of a Flower.—Take a piece of wire six inches long; across the top, lay a small piece of cotton wool, turn the wire over it, and wind it round until it is the size of the centre of the flower which is being made. If a single flower, cover it with paste or velvet of the proper color, and arrange the stamens round it; these are made of fine Indian silk, or feathers may be used for this purpose. After the petals have been attached, dip the silk or feather into gum, and then into the farina. Place the petals around, one at a time, and wind them on with Moravian cotton, No. 4; arrange them as nearly like the flower you have for a copy as possible. Cut the stems of the feathers evenly, and then make the calyx of feathers, cut like the pattern or natural flower. For small flowers, the calyx is made with paste. Cover the stems with paper or silk, the same color as the flowers; the paper must be cut in narrow strips, about a quarter of an inch wide.

112. To Make the Paste of the Calyx, Heart, and Buds of Flowers.—Mix common white starch with gum-water until it is the consistence of treacle; color it with the dyes used for the feathers, and keep it from the air.

113. To Make the Farina.—Use common ground rice, mixed into a stiff paste with any dye; dry it before the fire, and when quite hard, pound it to a fine powder. The buds, leaves, and hearts of some double flowers, are made with cotton wool, wound around wire, moulded into shape with the thumb and finger. Smooth it over with gum-water, and when dry, cover the buds, leaves, or calyx, with appropriately colored pastes; they will require one or two coats, and may be shaded with a little paint, and then gummed and left to dry.

114. Flowers of Two or More Shades or colors, are variegated with water colors, mixed with lemon-juice; ultramarine and chrome, for blue and gold, may also be used in powder, mixed with lemon-juice and gum-water. Feather flowers thus made prove an easy and inexpensive accomplishment, and yield pretty ornaments for the chimney-piece, cheffonier, etc.

115. The Leaves of the Flowers are made of green feathers, cut like those of the natural flower, and serrated at the edge with a very small pair of scissors. For the calyx of a moss-rose, the down is left on the feather, and is a very good representation of the moss on the natural flower.

116. **To Dye Feathers.**—Feathers may be dyed of various colors, as follows:—

117. Blue.—One ounce of oil of vitriol by measure, one drachm of the best indigo, in powder; mix them well together, and let the mixture stand for a day or two; when wanted, shake it well, and put a tablespoonful of it into a quart of boiling water. Stir it well, put the feathers in, and let them simmer for a few minutes, then take them out, and lay them by to dry.

118. Green.—Mix the indigo liquid with turmeric, and pour boiling water over it; let the feathers simmer in the dye until they have attained the shade desired.

119. Lilac.—Put two teaspoonfuls of cudbear into a quart of boiling water; let it simmer a few minutes before the feathers are put in.

120. Pink.—Three deep pink saucers, in a quart of boiling water, with a small quantity of cream of tartar. If a deep color be required, use four saucers. Let the feathers remain in the dye for several hours.

121. SCARLET.—Into a quart of boiling water, dissolve a teaspoonful of cream of tartar, put in a teaspoonful of prepared cochineal, and then a few drops of muriate of tin.

122. YELLOW.—Put a tablespoonful of the best turmeric into a quart of boiling water; when well mixed, put in the feathers. More or less of the turmeric will give them different shades, lighter or deeper, and a very small quantity of soda will give them an orange hue.

123. BEFORE THE FEATHERS ARE DYED, they must be put into hot water, and allowed to drain before they are put into the dyes. After they are taken out of the dye, rinse them two or three times in clear cold water (except the red, which must only be done once), then lay them on a tray, over which a cloth has been spread, before a good fire; when they begin to dry and unfold, draw each feather gently between your thumb and finger, until it regains its proper shape.

124. To Prepare Skins with Wool or Fur on.—The ordinary mode practised by tanners and furriers in the preparation of skins, with the wool or hair left on the outside, is to soak them for a short time in water to cleanse and soften them, and afterwards to thin them inside by scraping, if they require it. They are then placed for three or four days in a bath, made by mixing two pounds of bran in one gallon of water; the whole quantity being of course regulated by the number of skins to be soaked. Next, a paste, made with one pound of alum and three ounces of common salt, moistened with water, and worked together, is spread on the inside of the skin, and left for about eighteen hours, when they are hung up to dry, with the fleece or hair outermost, and if possible, in the sun. After this, the inside is smoothed with pumice-stone, and sometimes a warm iron is passed over it, and then with a switching or brushing of the outside, the operation is complete.

125. How to Prepare Starch.—Put two or three tablespoonfuls of starch into a bowl, and mix it gradually with just enough of clear cold water to convert it into a thin paste, pressing out all the lumps with the back of the spoon, till it becomes perfectly smooth; then pour it into a clean pipkin or skillet. Have ready a kettle of boiling water, and, by degrees, add some of it to the starch, stirring it well. A pint or a quart of the hot water may be allowed, according as it is desired that the starch should be thick, thin, or of a moderate consistence. Set it on hot coals, and boil it thoroughly for half an hour. If not well boiled, it will fail to be glutinous. When it has boiled for about fifteen minutes, stir it a few times, for a moment each time, with the end of a spermaceti candle. This will prevent it becoming sticky. If a spermaceti candle is not at hand, sprinkle in a little salt, about a teaspoonful to a pint of starch, or throw in a piece of loaf sugar. Finish by stirring it vigorously with a spoon. Strain the starch through a white cloth into a large pan, and squeeze into it a very little blue from the indigo bag; but it must be very little.

126. Impure Breath.—There is nothing more annoying to a person of refined feelings, than to be afflicted with an impure breath; and as the causes from which it proceeds are so limited, and the treatment, in most cases, so simple and attainable, it becomes a great social dereliction in any one so afflicted, not to avail himself of a remedy. Impure breath generally proceeds from two causes—an unhealthy state of the stomach, and unclean or decayed teeth. For the former condition, bitter tonics should be used before each meal, and a laxative pill be taken once or twice a week, until the digestive organs are in a healthy state. In the meantime, almost the only safe and effective remedy is the concentrated solution of chloride of soda; of which, six or eight

drops, in a wineglassful of water, may be taken once or twice a day. If the mouth be well rinsed with a teaspoonful of the solution of the chloride in a tumbler of water, the bad odor arising from the condition of the mouth and teeth will be instantly removed.

127. Preservation of Books.—Books require a certain degree of warmth and ventilation, to preserve both their bindings and their leaves. They should also be removed from their shelves, from time to time, and dusted, the shelves themselves undergoing a thorough cleaning at the same time. When the paper is disfigured with *stains of iron*, it may be perfectly restored by applying a solution of sulphate of potash, and afterwards one of oxalic acid. The sulphurate extracts from the iron part of its oxygen, and renders it soluble in the diluted acids. The most simple, but at the same time very effectual method of erasing *spots of grease*, wax, oil, or any other fat substance, is by washing the parts with ether, and placing it between white blotting-paper; then with a hot iron, press above the parts stained, and the defect will be speedily removed. In many cases, where other stains are not bad, rectified spirits of wine will be found to answer the purpose. To remove *spots of ink*, and *writing*, spirits of salts, diluted in five or six times the quantity of water, may be applied, and after a minute or two, wash it off with clear water.

128. To Wash Thread Lace.—Rip off the lace, carefully pick out the loose bits of thread, and roll the lace very smoothly and securely round a clean black bottle, previously covered with old white linen, sewed tightly on. Tack each end of the lace with a needle and thread, to keep it smooth; and be careful in wrapping not to crumple or fold in any of the scollops or pearlings. After the lace is on the bottle, take some of the best sweet oil, and with a clean sponge wet the lace thoroughly to its inmost folds. Have ready, in a wash-kettle, a strong cold lather of clean water and white Castile soap. Fill the bottle with cold water, to prevent it bursting, cork it well, and stand it upright in the suds, with a string round the neck, secured to the ears or handle of the kettle, to prevent its rolling about or breaking while over the fire. Let it boil in the suds for an hour or more, till the lace is clean and white all through. Drain off the suds, and dry it on the bottle in the sun; when dry, remove the lace from the bottle, and roll it round a wide ribbon block, or lay it in long folds, and place it within a sheet of smooth white paper, and press it in a large book for a few days.

129. Nature and Necessity of Sleep.—This state of being may be defined as that condition of natural consciousness in which the involuntary powers are in a state of insensibility, whilst the involuntary functions of nutrition, secretion, etc., are going on increased, diminished, or unaltered, according to circumstances. The end which nature has in view in assigning this condition to the human body, is to restore to it that strength and vigor which it has parted with during the waking hours. The precise amount of sleep which each person requires, is difficult to be ascertained. Some need more than others, either from age, constitution, or other circumstances; as a general rule, however, eight hours is deemed to be an interval sufficiently long to restore the animal economy, and sleep indulged in beyond that period, is apt to be injurious, rather than beneficial. The time of retiring to rest has a great deal to do with the refreshing powers of sleep. The best time is between ten and eleven o'clock, the common axiom being that two hours sleep before midnight is worth four hours after it. Sleep should be rarely indulged in during the day, except on extraordinary occasions of fatigue, weariness, etc. The custom of sleeping after a heavy meal, is especially injurious. In order to ensure comfortable sleep, it is necessary

that sufficient exercise be taken in the day; that the food, particularly in the evening, be moderate in quantity, and easily digested; the bed-chamber freely ventilated, the bed-clothes moderately light, and the mind free from much disturbance. The use of the flesh-brush on going to bed, and keeping the body cool and the feet warm, are grand means of promoting sleep.

130. Hints to Railway Travellers.—As this has become the almost universal mode by which passengers are transported from one place to another, a few hints calculated to render the traveller more comfortable, cannot fail to be acceptable. The first thing which a person should do, who is about to travel by rail, is to ascertain certainly, from the time table, the hour at which the train starts; the next thing is to make arrangements for being conveyed from the place he is staying at to the station; and the third provision is, to have everything packed in readiness, so as to avoid hurry and confusion at the last moment.

Having obtained your ticket in good time, you should then see that your baggage is properly checked. Unless the distance is a very long one, it is desirable not to leave the carriage, as the former degree of comfort is seldom secured.

Experienced travellers carry their provisions with them, by which means they may appease their wants whenever they please, and at their leisure.

If you have purchased a through ticket, and wish to stop at any intermediate station, ask the conductor for a "stop-off check."

Sleeping coaches are attached to all night trains, and a berth may be secured by the payment of two dollars.

When the station at which you wish to stop is announced, do not rush to the door, but keep your seat until the train stops.

131. Advertising.—This popular mode of intercommunication, by which the various sections of the public correspond with each other, has made such rapid strides of late years as to have almost become a social necessity.

That great benefits are derived from advertising in the public papers cannot be doubted. In some instances large fortunes have been made by a lavish expenditure in advertisements; but far more frequently important sums have been thrown away, and advertisers brought to ruin, by their want of knowledge how to make a proper selection of papers, and how to interest the public by their announcements.

Much depends upon the form of an advertisement. Such charlatanic headings as "Wonders will never cease!" "Read, mark, learn, and inwardly digest!" "Alarming sacrifices—giving away!" etc., generally offend the reader, and defeat the purposes of the advertiser. While announcements in the form of a "Proclamation!" or puffs with the words "Murder!" "Reward!" "One thousand dollars!" etc., thrown out in large letters to attract the eye and deceive the sense, only create disgust, and do injury to the interests they are designed to serve.

Advertisements to catch the eye and create a favorable impression, should be brief, explicit, and truthful. A person commencing advertising will find it far more beneficial to carefully decide, before commencing, upon a fitting or "telling" form of advertisement, and to keep to that form for a long period. Every variation of the form estranges the mind of the reader from the recollection of what he has previously seen, and does away with that *cumulative influence* of a series of advertisements, of which experienced advertisers know the value.

No person should venture upon speculative advertising who needs an immediate return for his outlay.

The productiveness of advertisements is a thing of growth, to be developed and expanded by constant attention and continual investment, until a favorable impression is produced,

These latter remarks do not, of course, apply to matters of single and temporary need, such as "Houses to let," or "Situations wanted."

The want of employment is one of the great "daily wants" of a large portion of society; to which the requirement of able and worthy assistants, on the part of shop-keepers, merchants and others, is only second. A single advertisement will frequently bring assistance or employment to those who need it, and the investment of a dollar or two for such an object is a wise economy.

132. Fraudulent Advertisements.—It is a well known fact that there exists certain adventurers who seek to entrap the unwary by inserting a class of announcements in the newspapers of a specious and plausible character, the terms of which advertisements, as a matter of course, never are and never were intended to be, carried out. One of the most common forms of conducting these dishonest proceedings is for the advertiser to offer to teach some accomplishment (generally light and elegant) by which a handsome income may be realized, on consideration of receiving a certain number of postage stamps. The knowledge imparted for the stamps so sent is almost invariably of the most worthless description: sometimes it takes the form of a hackneyed receipt for preparing some article that is seldom or ever in request. At another time it consists of instructions in some art that offers little or no employment. And one of these schemers has been known to have the assurance to transmit to his correspondent, as a means of making a handsome income, the process by which a certain quantity of potatoes might be bought at the wholesale price, baked, and retailed to the public at so much per head. It is unnecessary to single out individual instances of fraud committed in this direction; suffice it to say, that where extraordinary advantages are offered in return for a totally inadequate consideration, there is the greatest reason to suspect the good faith of the advertiser.

133. Bathing.—The great importance of bathing must be obvious, when it is considered that the well-being of the whole frame depends in a great measure on the healthy condition of the skin. It is, therefore, absolutely necessary, in order to ensure perfect health, that the entire surface of the body should be at frequent intervals subjected to the action of water. Bathing may be divided into various temperatures, cold, hot, tepid, etc., and be applied in a variety of forms.

134. The Cold Bath.—The temperature of the blood and interior parts of the body is about 98 degrees, while that of such parts of the surface as are usually clothed is about 90 degrees. If, therefore, the body be immersed in water below 90 degrees, there is a sensation of cold, a shrinking and paleness of the skin, a hurried respiration, and increased action of the heart. If the bather be in good health, these symptoms are almost immediately succeeded by a universal sensation of warmth, which rapidly increases to a certain point so as to cause the surrounding water to feel comfortably warm. This is called the reaction of the system, and results from the increased activity of the various organs of the body, in their effort to overcome the shock produced by the cold water. The cold bath, when used by persons in health, strengthens the digestive organs, and by diminishing the sensibility of the skin, renders the body less susceptible to atmospheric impressions. If, after coming from a cold bath, no glow or pleasurable sensation is experienced, but, on the contrary, the bather feels dull and chilly, it is certain that cold bathing does not agree, and it should be immediately discontinued. It should also be studiously avoided in all those cases where the heat of the body is below the natural standard, where profuse perspiration exists, or where there is a predisposition to inflammatory affec-

tions of the lungs. The interval for a person to remain in a cold bath should not at any time exceed ten minutes, or a quarter of an hour; and in winter not more than five minutes. The best period of the day for taking the cold bath is about two hours after breakfast. There are exceptional cases where persons bathe before breakfast, but as a general rule it should be avoided. Out-door bathing may be best indulged in from June to September. In-door bathing may be continued throughout the year, with the precaution that the thermometer in the apartment stand at from 50 to 60 degrees of Fahrenheit, and that the water be exposed to this atmospheric temperature at least six hours (when that is possible), or be raised to from 45 to 55 degrees, if below it. In all cases the use of *the cold bath for new born, or very young infants, is objectionable.*

135. The Tepid Bath is more important for the purpose of cleanliness, and the general preservation of health, than as a remedy for disease; although in the latter case it is very valuable. The range of temperature extends from 85 to 92 degrees; and it is sometimes employed previously to the cold bath, the bather lowering the degree of heat gradually each time, until he arrives at that of the cold bath. For the mere purposes of ablution the tepid bath is the best, choosing the particular degree of temperature that is most desirable. It is very refreshing after fatigue, and to persons of sedentary habits, very beneficial.

136. The Warm Bath has a temperature ranging from 92 to 98 degrees; when the heat is 92 degrees, though the first effect is slightly stimulating, yet, when time is allowed for that influence to subside, it is gradually succeeded by soothed and tranquillized sensations throughout the whole nervous system. At a higher temperature, but under 98 degrees, it raises the spirits, increases the pulse, and invigorates the whole frame. The warm bath modifies the texture of the skin; excites the pores to increased action, and equalizes the circulation of the blood. It is especially grateful after excessive muscular action, fatigue, or travelling. It is also useful after long mental excitement, and in a variety of nervous and spasmodic disorders. For infants during teething, it constitutes an admirable remedy; and in cramp, measles, and other complaints incidental to infancy, it is of the greatest benefit. The temperature of a warm bath for children should not exceed 96 degrees; generally from 92 to 94 degrees will be found the safest range. A child should not remain in the warm bath longer than five minutes, and as a general rule two or three minutes will be sufficient. On removing the child, it should be carefully dried and wrapped in a blanket warmed to equal heat.

137. The Hot Bath is exceedingly valuable in relieving certain diseases, chiefly by producing perspiration, and thus acting on the circulating medium. It has a remarkably tranquillizing effect upon the nervous system, producing a strong tendency to quietude and sleep. It also acts as a powerful anti-spasmodic, and by determining the blood to the surface of the body, tends to relieve inflammation and congestion. The temperature of the hot bath ranges from 98 to 112 degrees. It is a powerful stimulant, and should never be used by a person in perfect health. The period of immersion should not exceed ten minutes.

138. The Shower Bath, independently of its general invigorating effects, is frequently employed with advantage where there is a tendency of blood to the head, giddiness, etc. The water may be either cold or tepid, and an addition of salt is sometimes an improvement. When necessary the feet may be immersed in warm water, and if it is desired to keep the head dry while the body is submitted to the action of the water, an oil skin cap may be put on. This bath should

never be resorted to by weak and delicate persons without previous medical advice.

139. THE DOUCHE BATH consists of throwing a stream of water with more or less force on any desired point. It is frequently used in sprains, chronic rheumatism, stiffness of the joints, etc. It may be applied from the spout of a tea-kettle, or any other domestic contrivance, by which the rapid and uniform descent of a body of water can be effected.

140. Advice to Sea Bathers.—The most natural and beneficial mode of cold bathing, is that afforded by the ocean, its waters possessing a peculiarly bracing influence, which imparts a tone and vigor to the system. Some precautions, however, are necessary. No infants, or children of tender years, should be immersed in the sea, as the shock occasioned by the cold temperature, as well as the terror imparted, both act prejudicially. Children above six years of age may be bathed with less precaution; but even then they should not enter the water when their bodies are either cold or hot. A warm glow on the skin, produced by a gentle walk, is a test of the condition most advantageous for entering the water. For children, two or three plunges will suffice; and those of more advanced years, should never remain above ten minutes or a quarter of an hour in the water. An hour or two about noon will usually be found *the most advantageous time* for sea bathing, as the sun's rays then exert a sufficient influence upon the temperature of the water, without producing any injurious effect upon the head of the bather, especially if it be kept cool by frequent submersion. Sea bathing, at the commencement, should be practised twice or thrice a week. Afterwards, it may be used daily with advantage, but not oftener. It may be continued for one, two, or three months, but seldom with advantage beyond the latter period. A flowing, instead of a receding tide, is to be preferred as more agreeable, salubrious, and less dangerous; the water being purer before it has commingled with the refuse of the beach, and the person in less danger from the reflux of the wave. Persons of consumptive and scrofulous tendency, should resort to sea bathing with extreme caution, and not without medical advice. Adults, upon entering the sea, should immerse the head immediately, on account of the apoplectic tendency that might otherwise be induced. Persons in more advanced life should not attempt sea bathing without medical advice; and even then the period of immersion should never exceed five minutes.

141. GENERAL PRECAUTIONS TO BE OBSERVED IN BATHING:—

Do not bathe the lower extremities first.

The immersion should be complete at once.

Never leap into deep water feet foremost, and in an erect position. The best method is to drop into the water, the body and limbs being bent together.

Do not stand still or remain motionless in the water.

Do not remain long enough in the water to become chilled.

Leave the water on the first indication of cramp.

Apply a brisk towel all over the body as soon as you leave the water, and dry yourself thoroughly and as expeditiously as possible.

Dress yourself as soon as you are thoroughly dry.

Do not indulge in violent exercise immediately after a bath, but take a brisk walk, just sufficient to heat you.

142. Going into Business.—Persons who are about to take a place of business, will find it to their interest, previous to doing so, to be guided by the following directions:—

143. SMALL CAPITALISTS.—Let us take the case of a person who has no intimate knowledge of any particular trade, but having a small capital, is about to embark it in the exchange of

commodities for cash, in order to obtain an honest livelihood thereby. Now it is clear that unless such a person starts with proper precaution and judgment, the capital will be expended without adequate results; rent and taxes will accumulate, the stock will be dead or become deteriorated, and loss and ruin must follow. For the least absorption acting upon a small capital, will soon dry up its source; and it is needless to picture the trouble that will accrue when the main-spring of a tradesman's success abides by him no more.

144. Larger Capitalists.—The case of the larger capitalist can scarcely be considered an exception to the same rule. For it is probable that the larger capitalist, upon commencing a business, would sink more of his funds in a larger stock—would incur liability to a heavier rent; and the attendant taxes, the wages of assistants and servants, would be greater; and, therefore, if the return come not speedily, unfortunate consequences must sooner or later ensue.

145. Localities.—Large or small capitalists should, before entering into business, consider well the nature of the locality in which they propose to carry on trade, the number of the population, and the habits and wants of the people living in the immediate neighborhood; also, the extent to which they are already supplied with that class of goods which he proposes to offer them.

146. New Neighborhoods.—There is a tendency among small capitalists to embark their fortunes in new neighborhoods, with the expectation of making an early connection. Low rents, also, serve as an attraction to these localities; it is, however, a pretty well ascertained fact, that the majority of shopkeepers in a new neighborhood almost always fail. The shops are generally entered upon at the very earliest moment that the state of the locality will permit—even while the streets are unpaved, and while the roads are as rough and uneven as country lanes. The consequence is, that as the few inhabitants of these localities have frequent communication with adjacent towns, they, as a matter of habit or choice, supply their chief wants therefrom; and the shopkeeper in the locality must depend upon the custom which forgetfulness, the state of the weather, or other fortuitous circumstances cause. Thus it occurs that while the new district is becoming peopled, the funds of the small shopkeeper are gradually eaten up, and failure overtakes him just at the time when a more cautious speculator steps in to profit by the connection already formed, and to take advantage of the now improved condition of the locality. It is, therefore, desirable for the small capitalist rather to run the risk of a more expensive rent, in a well-peopled district, than to resort to places where the demand is slow and uncertain; for the welfare of a small shopkeeper depends entirely upon the frequency with which his limited stock is cleared out and replaced by fresh supplies.

147. Good-will and Fixtures.—One plan of entering upon a shop, is to pay a certain amount for what is termed the good-will of the business; that is to say, the new-comer is supposed to stand in the same position, and have like prospects, as the person relinquishing the shop, and has a connection with its attendant profits already made to his hands; the extent of the trade done regulating the value of the good-will; and in many cases it is customary to give a large sum in this way, inasmuch as the profits derivable show a liberal percentage on the amount thus invested. In purchasing a business under these conditions, it is necessary to exercise the greatest caution and discretion in order that the in-comer may not be disappointed or deceived. When a person wishes to dispose of the good-will of his business, he frequently exaggerates the amount of his takings, and will

even go so far as to fabricate books and other plausible evidences of a flourishing trade; whilst under the fairest circumstances the out-goer naturally gives a high color to matters, and reduces mere probabilities and contingencies to positive facts. When, therefore, a person is about to purchase the good-will of a business, he should not content himself with an examination of the books, or the representations of the person who is about to dispose of the business, but he should judge for himself, by watching the trade for a few days (if possible, unobserved), by prevailing upon friends to do the same, and by noticing the characteristics of the neighborhood. It must also be observed that some connections appertain to the shop, and other connections to the shopkeeper; in the former case, the trade may be transferred from one person to another without diminishing; but in the latter case, from prejudice and predilection, and the exercise of personal like and dislike which it is impossible to control, the new-comer may find that the old customers drop off, and trade sensibly diminishes. In all cases, a clause should be inserted in the deed of purchase, that the out-going tenant *shall not open a shop in the same line of business, within a certain length of time, or within a certain distance of his former premises*, thereby preventing him from weaning away the patronage and custom from his successor. It would also be as well in such cases to retain a portion of the purchase-money, so as to meet any responsibility that may arise, as well as to exercise a wholesome restraint upon the out-going tenant. With regard to fixtures, they are sometimes included in the good-will, but it is always better to consider them as representing a distinct value, and to regard them as a separate item; if this be not done, it is probable that a great quantity of useless material may be purchased at an exorbitant price, to be afterwards sold at an enormous sacrifice, or to lie on the premises as worthless lumber. The fairer way is, for a respectable broker to be called in on either side, and any difference that may arise in their respective valuations, to be mutually adjusted. Previous to this being done, however, the intending purchaser should claim the privilege of rejecting any articles of furniture or fittings which he may deem useless. This option is not always to be exercised; where the trade is a very good one, and the profits large, the out-going tenant takes up an independent position, and will listen to no accommodation; but in other cases, where moderate advantages exist, many privileges and immunities are to be secured by decision, firmness, and tact.

148. The Kind of Business.—When a person is about to invest a small capital as a shopkeeper, without having a precise knowledge of any particular branch of trade, and without having a predilection for one branch of business more than another, it becomes a question as to what class of goods he should stock his shop with, so as to ensure him the quickest return for his outlay. In taking this view of the case, it will be found that the *necessities* of life form the most reliable and readily saleable stock in trade. Thus people will become hungry, and must have bread, which they have neither the time nor inclination to fetch from a distance; meat is also a daily want, which must be supplied on the spot; and vegetables, unless easily obtainable, will in many cases not be purchased. Therefore, the baker, the butcher, the greengrocer, etc., are those who prosper in new localities and recently-built shops. And not until these are doing well, should a shopkeeper venture on commencing business in such localities, with what may be termed the *superfluities* of life.

149. **How to Succeed in Business.**—Success in business, depends in a great measure upon the way in which the person conducts himself towards his customers: a civil manner and obliging disposition are

certain to work a favorable impression, and win their way to success. On the other hand, a disobliging, pert, or sullen manner, will cause incalculable mischief, and if persisted in, must in nine cases out of ten result in failure. It is astonishing how much injury may be the consequence of a single word, look, or gesture, incautiously indulged in under the influence of irritation or impatience. Such circumstances, trifling as they may appear, will rankle for months or years in the bosom of the offended customer, and will cause him to deal at another shop at considerable personal inconvenience, rather than be subjected to what he considers indifference or insult.

150. Attention to Business.—Attention to business is another material ingredient of success. Persons have naturally greater confidence in a shop which is conducted under the owner's immediate supervision, than in one which is left entirely in the hands of subordinates. Not only is civility ensured, but the chances are that the purchaser will more readily obtain the article desired, and at better value for his money.

151. Method.—In business matters, method is most important; and whether the business be large or small, should never be lost sight of. The keeping of books, accounts, etc., should be carried out on some settled and definite plan, no matter how primitive it may be, so that the bookkeeper may find it easy of reference, and that every transaction appears in a clear and straightforward manner. Method should also be observed in the keeping of stock, and in establishing some system by which any article that is getting low may be ordered at once, so that a customer may not be told that they are "out of it," and thus drive that customer to another shop, to which he may possibly transfer the whole of his future patronage.

152. Regularity.—This chiefly consists in doing one thing at a time, and never beginning a second until the first is despatched. Much of the confusion, and many of the mistakes in business undoubtedly arise from the foolish custom of attempting to do several things at once, the consequence being that not one is properly performed, and an immense loss of time and labor is entailed in rectifying the errors resulting from this loose method of conducting business. That which appears to be the longest and most tedious process in the transaction of business, is in the majority of cases the most expeditious, and it is astonishing how much real labor may be performed in the course of the day when done in this orderly, quiet, and methodical manner.

153. Punctuality.—The advantages of punctuality and the evils attending the non-observance of it are patent to everybody. Nothing is more irritating to the man of business than to have his arrangements thrown out, and his plans disorganized, owing to the disregard of punctuality on the part of some other person; and no character can be more fatal to a tradesman than that of his being sure *not* to keep his appointment when he has made one. On the other hand, a person who observes his engagements to the letter, and who can be relied upon with certainty, is always held in high esteem. The fact makes itself felt that a man who is thus particular in keeping his word in slight matters, will be equally scrupulous in weightier affairs; and that, in short, he is actuated by a defined intention and a moral purpose to regard the convenience, the wishes, the feelings of others as well as his own.

154. Connection.—This term, as applied to trade, may be considered in several interesting lights; such as, family, religious, and political. The first, or family connection; should not be too implicitly relied upon; for, as a rule, they are more exacting and less easily satisfied than the general public; and will usually be the last to recognize your merits. Religious connec-

tion is naturally formed among those with whom we worship; but to whatever extent this may be so, and whatever advantage there may be attending it, a man should never make a show of religion for the purpose of advancing his worldly interests. If he does so, he will assuredly fail. The truth will out at some time or the other, and he will be regarded as a black sheep; and having built up his expectations and regulated his expenditure with certain views of support, the moment that support is withdrawn down the whole superstructure will come. As with religion so with politics. An ephemeral political connection may be gained by being guilty of some piece of time-serving, or disreputable traffic of opinion; but as a rule, he who discharges his duty as a good citizen, consistently and conscientiously, will gain more permanent and lasting support, and will, at one and the same time, augment the profits of his business and enlarge the circle of his friends.

155. The Treatment and Remuneration of Assistants.—A business man may do himself a great deal of harm or good by the manner in which he treats his assistants. The true way is, by kind treatment and adequate remuneration to endeavor to make those employed in your service feel conscious that your success is their own, and your advancement is theirs. By so doing, an identity of interests will be established, which of itself possesses the elements of success; besides, taking an every-day view of the matter, it must be understood that certain customers have a wish to be waited upon, by certain assistants, and that when these leave one service and enter another they will follow them there.

156. **Advice to Young Business Men.**—It has been truly said, that "men who have much depth of mind, can bear a great deal of counsel;" for it does not easily deface their own character, nor render their purposes indistinct. We therefore advise the young men who are starting in business, and who desire to be numbered among that large and influential class of citizens known as *successful business men*, to—

Fulfil every engagement punctually.

Do nothing carelessly, or in a hurry.

Employ nobody to do what you can easily do yourself.

Keep everything in its proper place.

Leave nothing undone that ought to be done, and which circumstances permit you to do.

Keep your own business to yourself, and do not interfere with the business of others.

Be prompt and decisive with your customers, and let your word be your bond.

Be clear and explicit in all bargains, take care to understand every transaction thoroughly yourself, and do not let others misunderstand you.

Leave nothing of consequence to memory, which can and ought to be committed to writing.

Retain copies of all letters, invoices, and other documents connected with business, tabulated, classified, and put away in such a manner that any document may be produced at a moment's notice.

Never suffer your desk to be confused with many papers, either lying inside or upon it.

Have certain places for books, and other things in constant use, always keeping them in their places when not required, so that they may be readily found without confusion or loss of time.

Superintend your own business affairs as much as possible: your personal attendance will be always more satisfactory to your customers, and will also ensure your assistants paying proper attention to their duties.

Examine your books day by day, so that you may inform yourself of the progress you are making with your customers, and the progress they are making with you.

Avoid, as much as possible, all sorts of finessing in money matters, and do not lend your name to any transaction that is not straightforward or in good faith.

Be economical in your personal expenditures.

Be cautious how you become security for persons, and choose rather to offend them by refusal, than to be unjust to your creditors by acquiescence.

Take pleasure in your business, and it will soon become your recreation.

Hope for the best, prepare for the worst, and bear manfully whatever may happen.

157. The Use and Abuse of Credit.—Credit is one of the necessities of commerce, for if all trade were transacted for ready money only, the commercial operations of the country would be confined to the narrowest limits. On the other hand, the facility with which credit may be obtained leads to many evils. Improvident and reckless persons frequently avail themselves of the privilege only to abuse it, and to enter into pecuniary obligations without the slightest intention of meeting them. In the ordinary course of commercial transactions, it is always possible, for a person taking credit, to make provision for payment at a stipulated time. And in order to effect this the more certainly, he should regulate his payments in such a manner that they do not fall too heavily at one and the same time. Thus, for instance, if there be a bill falling due on the 4th of January, for a large amount, no other bill should be made due upon that day, but a few days' interval allowed before the following payment falls due, to allow for any contingency, and to give breathing time, as it were, between one payment and the other. On the whole, credit is a material assistance to persons in business, especially young beginners; and a person who is in good credit, is regarded in as favorable a light as though he actually possessed so much cash. But when, from irregular payments, or an uncertain mode of conducting business, further credit is denied to a trader, from any one quarter, the circumstance soon becomes generally known, and causes other creditors to withhold the same privilege, thereby fettering the operations of the trader, and compelling him at last to relinquish his business altogether.

158. Pecuniary Difficulties.—When a person finds himself in such pecuniary difficulties as to be unable to meet the demands made upon him, the wisest course he can adopt is to meet the adverse circumstance boldly, and not to endeavor to conceal, either from himself or others, a position which must be divulged sooner or later, and which only becomes the more aggravated the longer it is hidden. To accomplish this end effectually, an embarrassed debtor should make out a clear and honest statement of his assets and liabilities, without exaggerating the one, or diminishing the other. This done, he should write down a detailed list of his creditors, and place against each the amounts of the present proposed instalment, and of the future payments which his resources justify him to apportion to each creditor. Thus prepared, the debtor should wait upon each of his creditors in person, or depute some friend or legal representative to do so, briefly stating the circumstances of the case, and making a proposition for settlement agreeably to the statement drawn up. The chances are, that an offer thus made will be accepted, with little or no detriment to the character and position of the embarrassed debtor. The creditor, as a matter of feeling, will appreciate the man who thus honestly declares his inability to meet his engagements, and makes practical arrangements for their future liquidation; while, as a matter of policy, he will be impressed with the fact that if he refuse to acquiesce, he will, in all probability, obtain far worse terms than those voluntarily made. But if, on the other hand, a debtor, through

false notions of pride, conceals the real state of his affairs, and temporarily patches them up by purchasing present relief at an exorbitant rate, he is but *postponing* the revelation which eventually must be made; increasing, in the meantime, his liabilities, incensing his creditors against him, so that they become inexorable, and finally expiating his folly by ruin and degradation, accompanied, perhaps, by imprisonment.

159. Arrangement With Creditors.—To conduct proceedings of this kind successfully, a little judgment and tact are required; and, in the first place, the debtor should avail himself of the services of a respectable attorney, who is both able and willing to assist him *personally* in the matter. Having done so, a meeting of the creditors should be called, and a proposal laid before them, showing how their claims may be compromised or liquidated with the greatest advantage to themselves. It should be so arranged, that the notice of said meeting would be received by the several creditors as near as possible at the same time. The mode of payment is generally by instalments, at stated intervals.

Other methods are, first, for the debtor to be empowered to wind up his affairs, under the superintendence and control of two or more of his largest or most influential creditors, and, as his estate is realized, to declare dividends from time to time until the produce thereof, up to the period of his stopping payment, has been exhausted. By this means the debtor is enabled to carry on his business as heretofore; all transactions subsequent to the suspension of payment being kept distinct and separate, and wholly free from any claim by previous creditors. Second, should the debtor fail to persuade the creditors to allow him to wind up his affairs under either of these arrangements, he ought then to propose to place his affairs in the hands of trustees, by whom the estate should be got in, and divided amongst the creditors. A third arrangement is that which is conducted under the control of the Court of Bankruptcy. In this case, the debtor should be guided entirely by the advice of his attorney. It should be borne in mind that the success of an arrangement with creditors, depends, in a great measure, upon the debtor himself. He must not only be able to convince his creditors of his integrity and good faith, but must also submit such a clear statement of his affairs as will carry out, by facts and figures, the representations and proposals made.

160. The Handkerchief.—Handkerchiefs are made of silk, cotton, and linen. Silk is the most durable, and preferred for common wear. White handkerchiefs are made of lawn or cambric; French cambric is considered the best. Handkerchiefs should be always marked with the owner's name or initials, as they are articles which are exceedingly liable to be mislaid.

161. Etiquette of the Handkerchief.—Always use a white handkerchief on occasions of full dress; let it be of fine texture, and if ornamented with a pattern, it should be a neat one, and the colors subdued. In carrying the handkerchief, hold it freely by the hand in the centre, allowing the corners to form a fan-like expansion; do not roll it into a ball, twirl it into a rope, or twist it into fantastic shapes. Avoid using it too much, and especially refrain from doing so during meal-times; but if compelled to use it, observe extreme delicacy, turn the head away from the table, and make as little commotion as possible. If the handkerchief be scented, apply a moderate portion of perfume only; excess in this particular is associated with vulgarity.

162. The Proper Season for Painting Houses.—The outsides of houses should be painted during autumn or winter. Hot weather injures the paint by drying in the oil too quickly, and causing the paint to

come off easily. But when the paint is laid on during cold weather, it hardens in drying, and is firmly set. The painting of the interior of houses should be regulated by the convenience of the occupants. If possible, the painting should be done at such a season as will allow them to be a good deal out of doors, so as to escape the unpleasant consequences as much as possible. It is hardly necessary to say, that while the painting is proceeding, the furniture of the rooms should be carefully covered up. Birds, rabbits, and other domestic pets, should also be removed from its influence, as, in many instances, the smell, to these animals, is sufficient to occasion disease, and even death. If the interior of a house is properly painted in the first instance, it will last for very many years.

163. To Remove the Smell of Paint from Rooms.—Fill three or four tubs with about eight gallons of water, and an ounce of vitriolic acid, and place them in the newly-painted room; the water will absorb and retain the effluvia from the paint in three days, but the water should be renewed each day during that time.

164. To Copy Engravings.—Mix ten grains of bichromate of potash, and twenty grains of sulphate of copper, in one ounce of distilled water. Spread this mixture over common writing-paper, and let it dry; then place the engraving, face downwards, on the prepared side of the paper, cover them with a piece of plate glass, and expose to the sunshine. In about half an hour, a faint copy is produced in yellow. This must be washed over with a solution of nitrate of silver, twenty grains to an ounce of distilled water; and when washed over, a beautiful red picture makes its appearance. Fix by washing in pure water. If it be desired to change the color of the picture, soak it in salt and water till it disappears; then hold it in the sun for five minutes, and the same picture again appears in a fine lilac color.

165. Gravel Walks.—In order to protect gravel walks from both moss and worms, and also to prevent weeds springing up, a simple remedy consists in mixing three parts of water to one of brine, from the salting tub, and pouring the mixture on with a watering-pot. Every autumn and spring the walks should be liberally watered for a week, and occasionally sprinkled over in summer.

166. Bronzing Iron.—This is done by applying a paint made of shellac varnish, in which a bronze powder is suspended, upon the metal in question. These bronze powders are largely imported here, and consist of various ingredients, the most common being bisulphide of tin, also called mosaic gold. It is cheaper to buy the powders than it is to make them. The metallic article to be bronzed, should be first cleaned from rust, otherwise the varnish would fail to stick.

167. Artificial Marble for Making Fancy Articles.—Soak plaster of Paris in a solution of alum; bake it in an oven, and then grind it to a powder. In using, mix it with water; and to produce the clouds and veins, stir in any dry color you wish; this will become very hard, and is susceptible of a very high polish.

168. Gloves.—Gloves are made of a variety of materials, adapted for various seasons and certain occasions. In winter, cloth or buckskin gloves are the most comfortable wear, and in summer, thread or silk. Kid gloves are adapted for intermediate seasons, as also for visits, parties, and other occasions of ceremony. French kid gloves are generally considered the best, and, as a consequence, are much dearer than the ordinary English make. The size of the kid glove should neither be too small nor too large, as the former occasions awkward holes and rents, to say nothing of the discomforts and cramping of the hand, while the latter makes the glove look

baggy and ungainly after being worn a few times. When gloves are being put on, they should not be pulled violently at the wrist, but coaxed on, finger by finger, and finally adjusted by passing the gloved hand through the other. When gloves are taken off, the fingers and thumbs first, and the whole glove afterwards, should be pulled out, so that they may regain their original shape, and then be put by. On ordinary occasions, black or dark colored kid gloves may be worn, but at dress parties, concerts, balls, etc., white or primrose color are invariably worn.

169. The Etiquette of Glove-wearing dictates, that it is always a mark of vulgarity to be seen out of doors without gloves. It is also considered bad taste to take off the glove just before shaking hands with a person; but this is a rule frequently disregarded by warm-hearted people, and by those between whom a close degree of friendship exists. The worst taste of all, is shaking hands with a person, and immediately afterwards remarking, "Excuse my glove;" because, if it be impolite to shake hands with the glove on, why not take it off? and if it be proper to do so, why make any remark about it?

170. Poisoned Gloves.—It has been observed that the hands of those wearing green kid gloves sometimes become covered with an eruption, which physicians find hard to cure. Upon analysis, it has been found that the green used for dyeing the kid contains arsenic. Though not all the green kid gloves in the market are so dyed, it is, nevertheless, safer to wear others of a less bright and less dangerous color.

171. Darning.—A method of mending socks and stockings which should be practised as follows:—Turn the stocking on the *right* side outwards; thread a small sewing needle with very fine cotton; pass the *fingers only* down the stocking, keeping the thumb outside, in order to preserve the edges of the hole in their places. "Fasten on" by darning backwards and forwards a few times at the end of the hole farthest from you; then, take on the needle two loops, both on one side, and draw the thread through; then take two on the other side of the hole, and draw them close; afterwards put the needle back into the last of the two loops or meshes, and take one additional loop, so that there are always to be two consecutive loops on the needle, yet only one of them is to be a fresh one; pass over to the opposite side and again put the needle back into the loop from which the thread issues, and take another (the next loop) on to it; thus continue drawing the edges close; and if this be done skilfully, which five minutes' practice will effect, the hole will be imperceptible. This is a case of simple dropping of stitches; a gigantic gap, however, is considerably contracted in its dimensions, and at least one-half of the consequent trouble of darning spared, by drawing the edges together, or so near as will allow the sock to be flat and unpuckered, with very fine cotton. In this case the hole will be made considerably smaller, and the regular darning afterwards will entirely hide the original thread that has held the gaping edges in their places. When stitches drop in a stocking, the fabric will generally be found very weak; and by the plan of "taking up the stitches," instead of an unsightly darn appearing, and a large portion of time being wasted, nothing will be requisite but to thicken the fragile part on the wrong side, in the usual manner.

172. Mending.—A considerable saving in the expenditure of income, is effected by the timely repair of articles of wearing apparel and domestic use. In large families this is especially the case, the clothes of children standing in need of constant repairs. Next to strength, the great object in mending is, that the repair should be hidden as much as possible. For this purpose, it would be as well

when purchasing the materials for new clothes, to buy a certain quantity over and above, to be kept as a sort of reserve store, and to be used as occasion requires. A bag or box should also be kept expressly for remnants of every kind to be placed in—cloth, silk, cotton, etc., so that when repairs are needed, the manipulator is never at a loss for the necessary materials. A thorough mending at once is better than a temporary patch, followed by successive attempts of a similar kind; the former method will be found more economical, and a considerable saving of time, as well as being far neater.

173. Bronzing for Leather.—The bronzing used for ladies shoes, is made by dissolving Aniline red in water. It should be applied with a piece of soft sponge.

174. The Deportment of a Witness in a Court of Law.—As most persons are, at some time of their lives called upon to give evidence in a court of law, a few hints as to the manner in which a witness should conduct himself, will be found of service.

175. Be Truthful.—One deviation from the truth will lead to many others, until the witness becomes involved in a perfect labyrinth of misrepresentation, in the midst of which he is denounced by the counsel, reprimanded by the judge, and held up to scorn in the public journals. A witness who wilfully misrepresents facts, also renders himself liable to an indictment for perjury, the punishment for which is a most severe one.

176. Give Short and Direct Answers.—State only what you know to be the facts, and do this in as few words as possible. When a question is put that requires either an affirmative or a negative answer, say "yes" or "no," and nothing more. Forbear to relate what you heard, or what was reported, or what you thought about the matter; these have nothing to do with facts, and facts are what are wanted.

177. Be Calm and Collected.—This is a direction which is perhaps more easily given than attended to. Nevertheless, a witness may exercise considerable control over himself by attending to the following hints. Turn your face to the jury, and look neither to the right nor to the left; even when the counsel questions you, you are to return the answer, not to him, but to the jury.

178. Preserve your Temper.—If the occupant of the witness-box suffers himself to be angered by the insinuations of the counsel, he does a very foolish thing, for in these cases the counsel occupies a superior position, and has the ear of the court, while the witness only succeeds in making himself appear ridiculous.

179. Be Serious.—A person tendering evidence in a court of law is performing a grave duty, and he ought to divest himself of anything approaching levity or flippancy. Above all, let a witness abandon all attempts at witticisms or repartee, for counsel are mostly masters of those arts, and all attempts at supplanting them end in discomfiture.

180. To Collect and Dry Sea-Weed.—First wash the sea-weed in fresh water, then take a plate or dish (the larger the better), cut your paper to the size required, place it in the plate with fresh water, and spread out the plant with a good-sized camel-hair pencil in a natural form; pricking out with the pin gives the sea-weed an unnatural appearance, and destroys the characteristic fall of the branches, which should be carefully divided; then gently raise the paper with the specimen out of the water, placing it in a slanting position for a few moments, so as to allow the superabundant water to run off; after which place it in the press. The press is made with three pieces of board, two sheets of blotting paper; on that lay the specimens; place straight and smooth over them a piece of old muslin, fine cambric, or linen, then some more blotting-

paper, and place another board on the top of that, and continue in the same way; the blotting paper and the muslin should be carefully removed and dried every day, and then replaced; at the same time, those specimens that are sufficiently dried may be taken away. Nothing now remains but to write on each the name, date, and locality. You can either gum the specimens in a scrap-book, or fix them in as drawings are often fastened, by making four slits in the page, and inserting each corner. This is by far the best plan, as it admits of their removal without injury to the page, at any future period, if it be required either to insert better specimens or intermediate species. Some of the larger algæ will not adhere to the paper, and consequently need gumming. The following is the best method of preserving them. After well cleaning and pressing, brush the coarser kinds of algæ over with spirits of turpentine in which two or three small lumps of gum mastic have been dissolved by shaking in a warm place; two-thirds of a small phial is the proper proportion, and this will make the specimens retain a fresh appearance.

181. To Render Cloth and other Fabrics Waterproof.—Take half a pound of sugar of lead, and dissolve it in a bucketful of soft water; then add half a pound of alum, and stir it until clear. The clear liquid should now be poured off, and the cloth put into it, where it must remain for twenty-four hours; then take it out and hang it up to dry—*do not wring it.*

182. Alloy.—This is a term given to a compound of two or more metals: the ductility of one, being used to counteract the brittleness of another, or the durability of a third, to correct one of an opposite nature. The composition of a few of the alloys commonly used in the arts is as follows:

Chinese White Copper.—Copper, 40·4; nickel, 31·6; zinc, 25·4; and iron, 2·6 parts.

Manheim Gold.—Copper, 3; zinc, 1 part; and a small quantity of tin.

Bath Metal.—Brass, 32; and zinc, 9 parts.

Speculum Metal.—Copper, 6; tin, 2; and arsenic, 1 part: or copper, 7; zinc, 3; and tin, 4 parts.

Hard Solder.—Copper, 2; zinc, 1 part.

Blanched Copper.—Copper, 8, and arsenic, ½ part.

Britannia Metal.—Brass, 4; tin, 4 parts; when fused, add bismuth, 4; and antimony, 4 parts. This composition is added at discretion to melted tin.

Plumber's Solder.—Lead, 2; tin, 1 part.

Tinman's Solder.—Lead, 1; tin, 1 part.

Pewterer's Solder.—Tin, 2; lead one part.

Common Pewter.—Tin, 4; lead, 1 part.

Best Pewter.—Tin, 100; antimony, 17 parts.

A Metal that Expands in Cooling.—Lead, 9; antimony, 2; bismuth, 1 part. This metal is very useful in filling small defects in iron castings, etc.

Queen's Metal.—Tin, 9; antimony, 1; bismuth, 1; lead, 1 part.

Mock Platinum.—Brass, 8; zinc, 5 parts.

Ring Gold.—Pure copper, 6½ pennyweights; fine silver, 3⅔ pennyweights; pure gold, 1 ounce and 5 pennyweights.

Mock Gold.—Fuse together copper, 16; platinum, 7; zinc, 1 part.

183. Flower Garden.—The situation of the flower garden should be conveniently near to the house, so as to afford ready access at all times, especially during winter and spring.

184. In Exposure and Aspect, the flower garden should be laid out in such a manner that it may derive the greatest possible advantage from the sun and air. It should not be

naturally low in surface, nor of a wet, retentive soil, nor rendered damp and gloomy by surrounding high trees, or lofty walls or buildings. If it happen that a house be nearly surrounded by a flower garden, the variety of aspect thence afforded will be favorable to the continuance of the bloom of flowers, far beyond what can be obtained if confined to a southern exposure. South, south-east, and east, are the aspects most advantageous to the growth of flowers; and, possessing these varieties of exposure, the bloom of a garden may be protracted some weeks beyond the time it could be preserved under a single aspect.

185. SHELTER is essentially requisite for the flower garden. The plantation on the side next the garden, should begin with the lowest shrubs, and rise in gradation to the trees, which, unless in the north, should not be of the tallest kinds. A few elegant shrubs, and one or two trees, may be scattered through the scene, either in the dug compartments, or the turf glades, for the purpose of shelter and shade, as well as ornament; but in general, much of either of the two former qualities is highly injurious, both to the culture of flowers and the thick closeness of turf, besides rendering the garden unfit to be resorted to in the winter and spring seasons. Sometimes an evergreen hedge will afford all the shelter requisite, as in small gardens, composed of earth and gravel only; but when the scene is large, and composed of dug compartments placed on a lawn, the whole may be surrounded by an irregular border of flowers, shrubbery, and trees. The soil best adapted for a flower garden, is one of commonly good qualities, and moderately light and mellow. Negatively, the ground should never be excessively strong and clayey: and mere gravel is very intractable.

186. THE SURFACE of the flower garden is regulated by the superficial extent; if that be small, and the plants to be grown are chiefly florists' flowers, or other select kinds, in beds separated by gravel walks, a level or gentle and uniform slope will be found most suitable; but where the limits are more extensive, and turf and shrubs are introduced, a wavy surface, either naturally or rendered so by art, will have the best effect.

187. THE EXTENT of the flower garden depends jointly on the general scale of the residence, and the particular taste of the owner. If the form of the ground where a pasture is to be situated is sloping, its size should be larger than when the surface is flat.

188. THE FORM of a small garden will be found most pleasing when some regular figure is adopted, as a circle, an oval, an octagon, a crescent, etc.; but where the extent is so great as not readily to be caught by a single glance of the eye, an irregular shape is generally more convenient, and it may be diversified by agreeable figures, or component scenes, by the introduction of shrubs, so as to divide the space. A variety of forms may be indulged in without offending taste; and a simple parallelogram, divided into beds running lengthwise, or the larger segment of an oval, with beds running parallel to its outer margin, will always please. On general principles, it should be observed, that as flower gardens are objects of pleasure, they must be laid out with taste. But in flower gardens, as in other objects, there are different kinds of tastes; these, embodied, are called styles, or diameters, and the great art of the designer is, having fixed on a style, to follow it out unmixed with other styles, or with any deviation interfering with the kind of taste or impression which that style is calculated to produce.

189. To Preserve Flowers.—Renew the water every day, and add to it a few drops of phosphate of soda, and a small quantity of a solution of carbonate of ammonia. This will supply your flowers with just the food their nature requires. Then cut off about a quarter of an inch of their stems daily, so that they may be able

to feed themselves freely, and they will remain as fresh and bright as if nourished by the hand of nature.

190. ANOTHER METHOD.—A method by which some flowers may be preserved for many months, is to carefully dip them, as soon as gathered, in perfectly limpid gum water; and after allowing them to drain for two or three minutes, to set them upright, or arrange them in the usual manner in an empty vase. The gum gradually forms a transparent coating on the surface of the petals and stems, and preserves their color and figure long after they have become dry and crisp.

191. FLOWERS MAY ALSO BE PRESERVED by simply dipping them into melted paraffine, and quickly withdrawing them. Treated in this way, they have the appearance of waxen flowers, but are much more perfect. To insure success, the flowers should be fresh and dry.

192. To Restore Faded Flowers.—Faded flowers may be more or less restored by immersing them half-way up their stems in very hot water, and allowing them to remain in it until it cools, or they have recovered. The coddled portion of the stems must then be cut off, and the flowers placed in clean cold water. In this way a great number of faded flowers may be restored, but there are some kinds on which it proves useless.

193. Ornamental Rock-work.—A rockery, if judiciously disposed, is a very fitting arrangement for a town garden, as it presents a greater apparent extent of space, in consequence of its abruptly undulated surface admitting of the walks being carried along within a few feet or yards of each other, and yet being completely hid. Rock-work may be advantageously employed in the formation of screens for shutting out objects which are not wished to be seen; to render more secluded and sheltered small places; and it may form the termination of a long or even principal walk, provided nothing better can be substituted. It should never rise out of the smooth-dressed lawn, nor be placed too near the house, shrubbery, and terraced banks, being better for shutting out objects in the foreground. When the culture of rock-plants is an object, the rockery should present two or more aspects, one damp and shaded, the other fully exposed to the sun. Ferns and plants of shade should occupy the former, while sun-loving plants should inhabit the latter. The size of the stones should always be varied, but proportioned upon the whole to the intended size of the rock-work. Rocks associate naturally with water; when a pool can be placed at its base, with its margin sufficiently broken and rugged, the effect will be heightened, and the plants derive advantage from the watery exhalations rising during the heat of summer. Every appearance of art, and approach to regularity, will be out of place in the construction of rockery. Any great elevation should not be sought in small rockeries. An additional projection may be given to some of the parts by moderate-sized bushes, or short-stemmed weeping trees. The foundations should consist of mounds of earth, which answer the purpose as well as any more solid erection, and will make the stones go farther. Rocks of the same kind and color should be placed together; if intermixed, they seldom wear a natural appearance. A dark cave penetrating into the thickest part of the erection is not very difficult to construct, and when encircled by ivy, and inhabited by a pair of owls, it will form a very interesting object. Rock plants of every description should be profusely stuck around, and in one short twelvemonth, the whole scene will exhibit an impress of antiquity far beyond anticipation.

194. Decalcomanie.—This beautiful art consists in transferring colored drawings to glass, porcelain, china, wood, silk, furniture, plaster of Paris, alabaster, ivory, paper, paper

hangings, windows, tea trays, oil cloth, and all kinds of fancy articles; in short, materials of any kind, shape, or size, provided they possess a smooth surface, can be decorated with decalcomanie; the immediate result being an exact resemblance to painting by hand. The art itself is simple and ingenious, and while affording agreeable occupation to ladies, it may be made to serve many useful purposes, on account of the numerous objects which will admit of being thus ornamented.

195. The Materials Employed in Decalcomanie are: i. A bottle of transfer varnish, for fixing the drawings. ii. A bottle of light varnish, to pass over the drawings when fixed. iii. A bottle of spirit, to clean the brushes, and to remove those pictures which may not be successful. iv. A piece of cloth, about nine inches square. v. Two or three camel-hair brushes. vi. A basin of water.

196. Instructions.—Thoroughly clean and free from grease the article to be decorated; then, having cut off the white paper margin of the drawing, dip one of the brushes into the transfer varnish, and give it a very light coat, being especially careful to cover the whole of the colored portion, but not to allow it to touch the blank paper; then lay the drawing, face downward, on the object to be ornamented, taking care to place it at once where it is to remain, as it would be spoilt by moving. If the varnish, on its first application, is too liquid, allow the picture to remain for about ten minutes to set. Moisten the cloth with water, and lay it gently on the drawing, which has been previously laid in its place on the object to be decorated; then rub it over with a paper-knife, or roller, so as to cause the print to adhere in every part; this done, remove the cloth, well soak the paper with a camel-hair brush dipped in water, and immediately after, lift the paper by one corner, and gently draw it off. The picture will be left on the object, while the paper will come off perfectly white. Care must be taken that the piece of cloth, without being too wet, is sufficiently so to saturate the paper completely. The drawing must now be washed with a camel-hair brush, in clean water, to remove the surplus varnish, and then left till quite dry. On the following day, cover the picture with a light coat of the fixing varnish, to give brilliancy to the colors.

197. To Ornament Dark-colored Objects, such as the bindings of books, Russia leather, blotting-cases, leathern bags, etc., the picture must be previously covered with a mixture of opaque white varnish, taking care not to pass beyond the outline of the design. On the following day, proceed according to the instructions given in the preceding paragraph.

198. To Ornament Silk Paper, or Articles which will not bear Wetting.—Varnish the picture with the transfer varnish, as previously explained, following the outline of the design, then allow it to dry for an hour or two; when quite dry, pass a damp sponge over the entire surface of the sheet, so as to remove the composition which surrounds the picture, and which may spoil the object. Let the paper dry once more, and varnish the picture again with the transfer varnish; in about ten minutes, place it face downward on the object to be decorated, and rub it with the paper-knife or roller, over the whole of its surface. Finally moisten the paper with a wet brush, allow it to remain sufficiently long to become moist, then strip the paper off. *To remove a spoilt picture from any object*, dip a soft rag in the spirits, and rub it over the surface.

199. To Insure a Successful Result, care must be taken to give a very light coating of varnish to the parts to be transferred. When the varnish is first applied, it is very liquid, and must remain ten minutes; the best condition for transferring being when the varnish is only just stieky, without being too dry.

200. The Following Designs will be found the most Elegant and Appropriate.—Flowers of every variety; bouquets; tropical birds; flowers and fruits in imitation of aquatint; garlands, with cupids after Watteau, and garlands with birds; domestic scenes; pears and cherries; apples and plums; white grapes and plums; black grapes and peaches; plums and mulberries; large bouquet of roses; bouquets of moss roses and pansies; bouquets of small camellias; bouquets of wall flowers and poppies; bouquets of orange blossoms, medallions, various subjects; birds' nests; Gothic initials and monograms, fleurs-de-lis; borders various.

201. Glassware.—When purchasing glasses for table furniture, it is always better to select such as are of superior material and make, as they are not so liable to crack or break as the inferior kinds, and always much more inviting.

202. To Clean Glassware.—Glass vessels should not be washed in hot water, as that is liable to break them, nor in warm water, as that leaves a dull polish on the surface. Cold water is always to be preferred, and if the articles are not more than usually soiled, this fluid alone will suffice; wiping them afterwards with a clean glass cloth, or a leather, if they are required to be very bright. Stains in glass may be removed by dissolving soda in the water in which the articles are washed.

203. Annealing Glass.—A simple and ingenious mode of annealing glass, consists in immersing the vessel in cold water, gradually heated to the boiling point, and suffered to remain till cold, when it will be fit for use. Should the glass be exposed to a higher temperature than that of boiling water, it will be necessary to boil it in oil.

204. Ground Glass.—The frosted appearance of ground glass may be very nearly imitated by gently dabbing the glass over with a piece of glazier's putty, stuck on the ends of the fingers. When applied with a light and even touch, the resemblance is complete.

205. To Loosen Glass Stoppers of Bottles.—With a feather, rub a drop or two of salad oil round the stopper, close to the mouth of the bottle or decanter, which must then be placed before the fire, at the distance of about eighteen inches; the heat will cause the oil to insinuate itself between the stopper and the neck. When the bottle or decanter has grown warm, gently strike the stopper on one side, and then on the other, with any light wooden instrument; then try it with the hand; if it will not yet move, place it again before the fire, adding another drop of oil. After a while, strike again, as before; and, by persevering in this process, however tightly it may be fastened in, you will at length succeed in loosening it. This is decidedly the best plan.

206. Preservation of the Teeth.—The preservation of the teeth should form an important item in the care of the person. The possession of sound teeth is a great blessing, as they not only promote the process of digestion, but keep the breath sweet and pure. Unsound and unclean teeth are also most unsightly and unpleasant for other persons to be brought in contact with. Parents should see to it, *that the teeth of children are not neglected;* and that they are early taught the proper use of the tooth-brush. It should be remembered that the teeth are bones thinly covered with a fine enamel; and that this enamel is more or less substantial in different persons. Whenever the enamel is worn through, the tooth will speedily decay. The teeth, therefore, are to be cleaned but with due precaution, for if the enamel is worn off faster by cleaning the outside than nature supplies it within, the teeth will probably suffer more by this method than by neglect. Much harm is frequently done to the teeth by cleaning them with too hard a brush or deleterious dentifrices, in either

case the enamel being scratched and otherwise injured. An exeellent method of preserving the teeth is to wash out the mouth with tepid water after each meal, and if animal food has been eaten, a wooden tooth-piek should be used. By these means the particles of food lodging about the teeth and gums are dislodged, which, when allowed to remain and aceumulate, prove exceedingly injurious.

As a matter of course, the preservation of the teeth is greatly influenced by what is eaten and drunk. All things that are either very hot or very cold are extremely bad; acids are especially injurious, as are also sweets. Whenever a cavity is actually developed, the sooner it is filled the better; and for this purpose a dentist should be consulted. A false enamel or tartar, frequently collects around the teeth, which causes the gum to loosen or ulcerate. This should be unmoved with the blade of a penknife, and a mixture of equal parts of tincture of arniea, and tincture of myrrh, should be applied to the gums, morning and evening. In many cases the odor arising from earious teeth is very offensive; to remedy this, the mouth should be well rinsed with a teaspoonful of the solution of chloride of soda in a tumbler of water, which will have the desired effect.

207. Rose Tooth-Powder.—Take of precipitated ehalk, two ounces; powdered orris-root, one ounce; rose pink, half a drachm; otto of rose, five drops; otto of lemon, three drops. All to be well mixed together.

208. Tonic Tooth-Powder.—Powdered orris-root, one ounee; powdered chareoal, half an ounce; powdered peruvian bark, half an ounce; oil of bergamot, and oil of lavender, eaeh ten drops. The powders should be well mixed togcther.

209. Cuttle-fish Tooth-Powder.—Powdered orris-root, two ounees; powered cuttle-fish, half an ounee; prepared chalk, one ounce and a half. This powder may be colored with rose pink, and perfumed with oil of rose, lemon, or neroli, if desired.

210. Quinine Tooth-Powder.—Rose pink, two drachms; precipitated chalk, twelve drachms; carbonate of magnesia, one drachm; quinine (sulphate), six grains. All to be well mixed together.

211. Tooth-Wash.—An elegant tooth-wash is made as follows: Take of spirits of wine, eight ounces; cologne water, (superior,) eight ounces; borax and honey, of each, half an ounce; tincture of myrrh, one ounee. A teaspoonful of this preparation added to half a goblet of water, should be used to rinse out the mouth. It preserves and beautifies the teeth, and induces a healthy action in the gums.

212. Tooth-Paste.—Take of powdered willow charcoal, half an ounce; honey sufficient, to make a stiff paste, and flavor with oil of wintergreen. This should be applied with the brush morning and evening.

213. Lamp Explosions.—In view of the frequent kerosene or coal oil lamp explosions, consumers should know: first, that if the oil will stand a fire test of 110 to 120 degrees Fahrenheit, it is perfectly safe for illuminating purposes. Second, that much of the oil now in the market will not stand a test of over 70 or 80 degrees, and is almost as explosive as gunpowder. It is therefore important that consumers should be able to determine the quality of the artiele offered them by dealers; and if they are willing to take the trouble, a single experiment will deeide the charaeter of the kerosene they purchase.

214. How Lamp Explosions may be Prevented.—"Fill a pint bowl two-thirds full of boiling water, and into it put a eommon metallie thermometer. The temperature will run up to over 200 degrees. By gradually adding cold water, bring down the temperature of the water to 110 degrees, and then pour into the bowl a spoonful of the kerosene, and apply a lighted match. If it takes fire, the

artiele should be rejeeted as dangerous; if not, it may be used with a eonfident feeling of its safety."—*Boston Journal of Chemistry.*

215. Fire-proof Clothing.—Reeent experiments have demonstrated that clothing may be rendered uninflammable, or at least so slightly combustible that it will not readily take fire. For this purpose a small quantity of tungstate of soda, mixed with the starch used in getting up muslin dresses, etc., will render them fire-proof. As this article is expensive, it has been suggested by chemists, to employ a mixture of four parts of borax, and three parts of sulphate of magnesia (Epsom salts), mixed together just before using, and dissolved in twenty or thirty parts of warm water; into which the cloths are immersed, then wrung out and dried. Another method is to add an ounce of alum, or the same quantity of sal-ammoniac to the last water used in rinsing; or a smaller quantity may be added to the starch. We strongly recommend ladies to employ one of the above methods, not only for those articles of personal attire which are liable to come in contact with flame, but for bed and window hangings, blinds, and other household draperies that may aecidentally ignite.

216. A Lady's Clothes on Fire.—No speeies of accident is more painful to witness, or more serious in its consequences, than that of burns, from the clothes catching fire. They not only eause immediate and terrible agony, but produee most serious loeal injuries afterwards; often impairing all the enjoyments of life, and too often proving fatal on the spot. As no previous teaching, no experience, is of any avail to the victim; who, losing all presenee of mind, rushes wildly into the air, creating an extra draught by the flight, and doubling the danger by the fanning power of the air; therefore—

217. The Moment a Person is seen in Flames, the bystander should instantly pull her or push her down, whether in the room or on the street; and then the rug, the carpet, coat, shawl, or table-cover, must be thrown over the body, and at the same time tightly pressed down, so as to smother the flames. Never attempt to stifle the fire by wrapping anything round the person while standing—*she must be forced down*—for while you may seem to be conquering the flames above, the deadly enemy may be devouring the sufferer, unseen, below.

218. Care of the Sufferer.—Until a physician arrives, those who have charge of the patient should know:—

First, that blisters are not to be cut or broken, nor burnt clothes adhering to the flesh removed.

Second, that the exposure of the burnt surface to the air is the eause of much of the pain.

Third, that it should be covered as quickly as possible, so as to protect it from the atmosphere.

Fourth, that for this purpose, sheets of wadding, fine wool, or clean cotton, are used; if these are not at hand, cover the parts with flour—or, equal parts of flax-seed oil and lime-water, may first be used, and this eovered with the wadding, should be allowed to remain until removed by order of the physician.

219. Black Ink.—Boil eight ounces of galls in coarse powder and four ounces of logwood, in thin chips, in twelve pints of rain water, for one hour; strain the liquor, and add four ounces of green copperas, three ounces of powdered gum arabic, one ounee of blue vitriol, and one ounce of coarse sugar; stir the mixture until the whole be dissolved, then let it subside for twenty-four hours; strain it off speedily, and put it by in stone bottles for use.

220. Dr. Ure's Ink.—For twelve gallons of ink take twelve pounds of bruised galls, five pounds of gum, five pounds of green sulphate of iron, and twelve gallons of rain water.

Boil the galls with nine gallons of the water for three hours, adding fresh water to supply that lost in vapor; let the decoction settle, and draw off the clear liquor. Add to it the gum, previously dissolved in one and a half gallon of water; dissolve the green vitriol separately in one and a half gallon of water, and mix the whole.

221. Ink Powder.—Is formed of the dry ingredients for ink, powdered and mixed. Powdered galls, two pounds; powdered green vitriol, one pound; powdered gum, eight ounces. This should be put up into two-ounce packets, each of which will make one pint of ink.

222. Red Ink.—Best ground Brazil wood, four ounces; diluted acetic acid, one pint; alum, half an ounce. Boil them slowly in an enamelled vessel for one hour, strain, and add an ounce of gum. A red ink of more beautiful appearance, but not so durable, may be made by dissolving a few grains of carmine in two or three teaspoonfuls of spirits of hartshorn.

223. Ink for Writing on Zinc Labels.—Verdigris, one ounce; sal-ammoniac, one ounce; lamp-black, half an ounce; water, half a pint. Mix in an earthenware mortar, without using a metal spatula. Should be put up in small one-ounce bottles ready for sale. *Directions.*—To be shaken before use, and used with a clean *quill* pen, on bright zinc.

224. Black Marking Ink.—Dissolve separately an ounce of nitrate of silver, and an ounce and a half of carbonate of soda, in distilled or rain water. Mix the solutions, and collect and wash the precipitate in a filter, whilst still moist; rub it up in a marble or wedgewood mortar, with three drachms of tartaric acid; add two ounces of distilled water, mix six drachms of white sugar, and ten drachms of powdered gum arabic, half an ounce of archil and water to make up six ounces in measure. Apply with a clean quill pen. It is usually put up in one or two-drachm bottles.

225. Red Marking Ink.—Take half an once of vermilion, and a drachm of salt of steel; let them be finely levigated with linseed oil, to the thickness or limpidity required for the occasion. The ink thus obtained has not only an attractive appearance, but will be found perfectly to resist the action of acids, as well as of all alkaline lyes; it may be employed with either a hair-pencil or a pen.

226. Household Linen.—This well-known article of wearing apparel, and general domestic use, is made in every variety of quality, from the coarsest to the finest. It is difficult to give directions for judging of the fineness of linen, the best guide being furnished by the comparison of one quality with another, and bearing in mind the peculiar characteristics of each. One of the most striking properties of this material is, that it is a non-conductor of heat, and therefore it is better adapted for summer wear than for winter use. Yet even in this capacity it must be adopted with caution, and with delicate persons especially, it should never be worn immediately next to the skin, the reason being that the perspiration, instead of being passed off through the fabric, as with cotton, remains on the inner surface, and by thus interrupting the free exercise of the pores, creates that cold and clammy sensation, which is as disagreeable to the feelings as it is injurious to the health. For external articles of clothing, however, linen will be found a cool and agreeable wear during the hot summer months. The cool and soothing nature of linen, renders it especially well adapted for binding up wounds or applying to sores, and neither cotton nor any other material should be used when this can be obtained. For this purpose, every housewife should always have a store of linen rags deposited in some accessible place, and in a fit condition to apply immediately, so that they may be used upon any emergency that may arise.

227. Care of Linen.—When linen is well dried, and laid by for use, the chief precaution to attend to for its preservation, is to secure it from damp and insects. The former is effected by placing the linen in wardrobes, drawers, or boxes, situated in apartments which are naturally dry, and which have fires occasionally lighted in them; the ravages of insects may be prevented by the use of a judicious mixture of aromatic shrubs and flowers, cut up and sewn in linen bags, and interspersed among the shelves and drawers. These ingredients may consist of lavender, thyme, roses, cedar shavings, powdered sassafras, cassia lignea, etc., to which a few drops of rose water, or other strong-scented perfume, have been added. When linen is placed by for any length of time, without being used, it should be brought forth occasionally, and hung up in the open air; by this means, it is prevented from becoming discolored, and the creases are prevented from wearing into holes. In all cases, it will be found more consistent with economy to examine and repair linen that may stand in need of it previous to sending it to the laundry. It should be borne in mind, that too frequent washing is liable to wear out linen more than ordinary use; and therefore the process should not be repeated oftener than is absolutely necessary. It will also be found an excellent plan to have every article numbered, and so arranged after washing, that each may be worn in its regular turn, and accomplish its proper term of domestic use.

228. Marking Linen.—The following plan answers the purpose of a perpetual inventory: On obtaining a batch of articles, say a dozen towels, or shirts, mark on each of them, first the number in the batch, and then the name and date, thus: "12 Smith 5. 73." Now, on discovering one of these at any time, you know that there should be eleven others of the same mark in existence, unless the date renders it probable that they have been worn-out and discarded, in which case their absence would give no concern. Whereas, the absence of one in an ordinary inventory leaves no indication whether it be a new or old article that is missing. A combination of the two methods has, of course, all the advantages of both.

229. To Remove Stains from Linen.—All stains should be taken out of linen as soon as discovered, and if possible, before they have been boiled.

230. Fruit Stains may be removed by rubbing the stain on each side with yellow soap, then tying up a piece of pearlash in it, and soaking it well in hot water; the stained part should afterwards be exposed to the sun and air, until removed.

231. Ink Stains may be removed by wetting the part with warm water, and applying salts of lemon.

232. Wine Stains will disappear, if the articles stained are placed in boiling milk, and suffered to boil for a short time.

233. Mildewed Linen may be restored by soaping the spots while wet, covering them with fine chalk scraped to powder, and rubbing it well in. Hang it on the line, and as it dries, wet it a little. A second application may be necessary.

234. Marking Ink may be removed from linen by a saturated solution of cyanuret of potassium, applied with a camel's-hair brush. After the marking ink has disappeared, the part should be well washed in cold water.

235. Oil-cloth for Floors.—This material is well adapted to cover floors that are subject to much wet and dirt, as halls, pantries, kitchens, etc. They are usually made from three-quarters of a yard to two yards in width, but they can be had of the size and shape of the floor they are intended to protect.

236. In Choosing Oil-cloths, those are to be preferred that are painted on a fine cloth, which is well

covered with the color, and the patterns of which do not rise much above the ground, as they wear out first. The durability of the cloth will also, in a great measure, depend on the time it has been painted, and the quality of the colors. If they have not been allowed a sufficient time to harden, a very little wear will injure them; to ensure this latter condition, therefore, it is as well to keep floor-cloths, some time before they are used, hung up in an out-house or a spare room, where they will be kept dry and have plenty of air. When taken up for the winter, they should be rolled round a carpet roller, and carefully turned, so as to prevent the paint from cracking.

237. The Objections to Oil-cloth is, that it strikes cold to the feet, and in the course of time, affects the whole body. In apartments, therefore, where floor-cloth is employed, a mat or rug should be laid down on that portion of the floor where the feet are likely to remain longest.

238. To Clean Oil-cloth, first sweep, and then wipe it with a soft cloth and luke-warm or cold water; or after removing the dust, rub with a waxed cloth, and then with a dry plain one; but use little wax, and rub only enough with the latter to impart a certain degree of smoothness, or it may cause persons to fall, by being too slippery. Washing occasionally with milk, after the above sweeping and dry rubbing, gives them a fine glossy appearance, and renders them less slippery.

239. **Drying Clothes.**—When clothes are hung out to dry, care should be taken to avoid anything that may communicate a stain, particularly iron, as this will cause iron-moulds. All articles intended to be white, should be hung in the sun as much as possible, and when they acquire a bad color, and require a kind of bleaching, they are best laid out on the grass, and prevented from blowing away by placing clean but heavy stones on them. Dyed and printed articles should never be hung in the sun, but dried in the shade; a shed or other sheltered place may therefore be selected for this purpose. Some articles require particular modes of hanging them up to dry. Very thick articles, as quilts, etc., are best hung over two lines placed a few feet apart, in order that both sides may be sufficiently exposed to the air. The summer months are best for washing thick and heavy articles of furniture, as blankets, counterpanes, bed-curtains, etc., on account of the greater facility with which they may be dried out of doors, and thus, also, acquiring a better color. Laces and veils require to be stretched smooth, and tacked to a piece of white muslin, before they are hung up. Muslin and other dresses must be stretched as smooth as possible, to prevent their becoming wrinkled in drying.

240. **Clothes Posts.**—These should be fitted into iron sockets, so as to be removable, and they will then last for years; but if left standing in the ground, they will soon decay at the bottom, and become useless. A cover should be fitted into each socket, to keep earth and litter from falling in when the post is removed.

241. **Clothes Lines** should never be left out of doors when not in use. When no longer needed, they should be carefully wiped, and, if wet, hung up in the open air to dry; after which they should be put away in a bag. Before they are used again, they should also be wiped, to prevent them from soiling or marking the linen.

Wire clothes lines do not require to be taken down, as the zinc coating does not rust; but they should be well wiped before being used.

242. **Clothes Bags.**—The best material for these receptacles of soiled linen, is canvas, or strong unbleached muslin. They should be about two yards long, and one and a half in breadth. They require to be strongly sewn, and to have strings, which will draw, run in at the top. Clothes should never be put into the bag when damp, as this frequently occasions mildew.

243. How Summer Suits should be Washed.—Summer suits are nearly all made of white or buff linen, pique, cambric or muslin, and the art of preserving the new appearance after washing is a matter of the greatest importance. In the first place, the water should be tepid, and the soap should not be allowed to touch the fabric. They should be washed and rinsed quick, turned upon the wrong side and hung in the shade to dry; and when starched should be folded in sheets or towels and ironed upon the wrong side as soon as possible. But linen should be washed in water in which hay has been boiled, or a quart-bag of bran. This last will be found to answer for starch as well, and is excellent for print dresses of all kinds, but a handful of salt is very useful also to set the colors of light cambrics and dotted lawns; and a little beef's-gall will not only set, but brighten yellow and purple tints, and has a good effect upon green.

244. How to Clean Paint.—When painted woodwork requires cleaning, soft-soap and fuller's earth, with warm water and a flannel, will be the best things to use. This work should be performed by proceeding from the top downwards, and the water should be prevented from running on the clean parts as much as possible, or marks will be made which will appear after the whole is finished. One person should dry with a soft linen rag as fast a another person has scoured off the dirt and washed away the soap. When paint is soiled in parts only, and does not require a general cleaning, take as much fine whiting as will adhere to a sponge or piece of flannel, that has been wrung out in clean warm water, and apply to the painted surface; when a little rubbing will remove every trace of dirt and grease. When paint simply requires to have the dust removed from it, a cloth should not be used, but, after blowing off the loose particles, a little long-haired brush should complete the operation. With care, paint will look well for a long time, if guarded from the influence of the sun.

245. Choice and Care of Pianoes.—In selecting a piano, care should be taken to have it harmonize externally, with the furniture in the midst of which it is to be placed.

The size of the room and the space in which it is to stand, should also be taken into consideration.

The piano should be placed in a position where it will not be subject to extremes of heat or cold, as either act injuriously on the instrument.

Pianoes when not in use should be kept closed.

Do not load the top of the piano with music, books, etc.; it looks badly and deadens the tone of the instrument.

A piano should be tuned every three months to keep it up to concert pitch.

It is common to suppose that any kind of piano, however faulty, will do for learners; the truth being that where the instrument is imperfect the ear of the learner is liable to be deceived and abused; whilst the difficulties of practice are rendered more difficult still, and embarrass the novice instead of lending aid.

Pianoes may be purchased, at prices ranging from three hundred to one thousand dollars; or they may be hired, from most dealers, at so much per month, quarter, or year.

246. How to Pack Trunks, Travelling Sacks, etc.—This should be done systematically and with order. The heaviest and most substantial articles should be placed at the bottom, and the most tender and fragile at the top. When it is not quite full, some stray articles should be placed to render it so, and to prevent the contents from shaking about. All materials that are likely to soil or stain the articles with which they come in contact, such as ink, wine, oil, etc., should be carefully corked, and placed in vessels not liable to break, and to protect them the more surely, they should be rolled in

some such article as an undergarment, and placed in a corner where they will ride securely. When there are more packages than one, the articles should be appropriately placed in their receptacles, according to the order in which they are likely to be wanted; so that one package need only be opened instead of three or four. In all cases, it will be found convenient and conducive to comfort, to pack such articles as are likely to be required for immediate use, into one portmanteau or bag, such as the night-dress, slippers, brushes, combs, etc., for by this means persons when arriving fatigued at the end of their journey, have those articles, necessary to their comfort, ready at hand, without being compelled to search one box after another, and perhaps without finding what is wanted after all. When going on a journey, trunks, boxes, etc., should be securely corded; and the *name* and *destination* of the owner should also be prominently placed on each package.

247. **Bedsteads.**—These articles of domestic furniture are constructed in a great variety of forms, which are known among dealers, as the four-posted bedstead, the cottage bedstead, the French bedstead, etc. Then we have the chair bedstead, the sofa bedstead, etc., which are contrived so as to close up during the day, and resemble some piece of sitting-room furniture. Bedsteads should be examined periodically, and kept scrupulously clean. They should be dusted daily, especially the top part, which is frequently neglected, dust suffered to collect, and vermin are thus bred. They should also be taken to pieces, every spring and fall, removed to the garden or yard, and then be thoroughly washed with soap and water. If the bedstead is infested with vermin, from age and long use, the eradication of the evil is almost hopeless; and the best and wisest plan is to get rid of the bedstead altogether. The new one should occupy a different position.

248. **Beds.**—When it is considered, that, from a third to one-half the sum of human life is passed in bed, the necessity of regulating it in such a manner as shall best conduce to health and comfort cannot be too strongly insisted on.

249. The Position of the Bed should be with the head to the wall and the feet to the window, as the sleeper will thereby escape any drafts, and yet have a free current of fresh air communicated to him. Beds should not be placed too near the floor, as the air of a sleeping apartment within one or two feet of the floor is charged with a pernicious gas, which is very unwholesome to breathe.

250. Curtains are, generally speaking, both unnecessary and unhealthy, especially when they are drawn all round the bed, and are made to cover the top. When used, the French arrangement, by which they are made to fall at the head and feet, by being thrown over a short pole fastened in the ceiling above the centre of the bed, is both ornamental and convenient. The curtains may thus be put up or taken down in a moment, without interfering with the bedstead.

251. **Feather Beds.**—To prevent the feathers from coming through, as they are apt to do, the ticking should be close and stout. A good plan is to have an extra case, made open at one end, so that it can be taken off, when necessary, and washed. Feather beds, to be kept in good order, require to be well shaken every day, otherwise the feathers mat together in hard knots, that are difficult to undo and separate. When this has happened from long use or neglect, so that the beds are uncomfortable to those who sleep upon them, the feathers should be taken out and renovated (see 260), and the ticking be well washed, dried, and aired; if not renewed. As feather beds imbibe the perspired vapors thrown out by the body—especially is this the case, when there is only a thin sheet between the

body and the tick—therefore, it is always better to interpose a stout blanket and thick cotton sheet. Except for the aged, feather beds should be used only in winter.

252. In Purchasing Feathers, the purchasers may choose their feathers, which are of various prices, at so much per pound; and they *should see the ticking filled with them*, having the quantity put in which they wish. If too much is put into the bed it will feel hard. As feathers are very expensive when bought new, it is more economical to await some favorable opportunity of purchasing them second-hand at a genuine sale of household furniture; by this means they will not only be procured much cheaper, but if they have been moderately used, and carefully preserved, will be more advantageous to have than an entirely new bed.

253. **Mattress.**—This article of bedding is sometimes placed between the bedstead and the bed, and sometimes employed as a bed itself. Mattresses are made of various materials; such as hair, wool, sponge, cotton, cork, husk, etc. When purchasing hair mattresses, care should be taken to procure them from respectable dealers, as an inferior quality is often used. The mattress, when well made, is both healthful and comfortable to lie upon, and may be rendered still more yielding and agreeable, by placing springs beneath it. Spring mattresses allow the perspiration of the sleeper to escape freely, and do not harbor insects, or stagnate the air. Mattresses require a periodical beating, and should be turned at frequent intervals; for when left unturned, the side nearest the floor absorbs the damp and communicates it to the other side, whilst the side nearest the sleeper absorbs the perspiration from the body, which, from continual contact and want of ventilation, it is unable to pass off.

254. **Warming Beds.**—The practice of warming beds is generally considered unhealthy, but this depends on the system. Getting into a cold bed is invigorating, where the system is sufficiently active, for after a few minutes the blood begins to circulate quickly, and a genial glow follows. With weak and sickly persons, however, bed warming is to be recommended, for the shock of a cold bed after leaving a warm apartment, is sometimes more than the system can bear without injury; with such persons equability of temperature is highly advisable.

255. To Heat a Bed at a moment's notice, burn a little salt in the warming-pan, just before using.

256. **Damp Beds.**—Damp beds are most dangerous to sleep in; not only from the fact of the body being at rest, and therefore unable to warm the surface by exercise, but also because when we are asleep, the body is more susceptible to any malign influence from cold or other causes. It is almost impossible to estimate correctly the serious consequences that may ensue from sleeping in a damp bed. Damp beds are generally met with at strange houses, and persons who travel much should be very cautious in this respect. When a person doubts whether the bed he is about to sleep in is well aired, or rather, when he does not know for a certainty that it is so, he had better remove the sheets and sleep between the blankets; and if a sensation of chilliness is then experienced, it would be wiser to spend the night on a lounge or chair, rather than tempt the impending danger.

257. To Detect Dampness in a bed a person should have it well warmed and immediately after the warming-pan is taken out introduce a glass tumbler between the sheets, in an inverted position, after it has remained there for a few minutes, it should be withdrawn and examined, if found dry and not tarnished with vapor, the bed is safe; but if the glass has vapor hanging about it, the bed is not fit to sleep in.

258. Bedclothes.—The perfection of dress, for day or night, where warmth is the purpose, is that which confines around the body sufficient of its own warmth, while it allows escape to the exhalations of the skin. Bedclothes, therefore, should not be too heavy, as they over-heat the body, and produce perspirations which are enervating, and ultimately productive of disease. Children, especially, should sleep under as few clothes as possible, consistent with the maintenance of a mild equable temperature. Aged persons, however, require warm bedclothing, in order to preserve and increase heat: cases having occurred, of old persons being found dead in their beds in the morning, apparently from no other cause than the stoppage of circulation by the coldness of the night. Beds should not be made until some hours after persons have left them; in the meantime, the clothes should be stripped off, the bed shaken, and the windows opened so that the air may blow upon them freely, and freshen them. The sheets of a bed should be washed once a week; it is considered unwholesome to wash them oftener. The blankets should be scoured periodically, as required.

259. Pillows.—Pillows should always be soft, and for the purposes of health, should be placed neither too high nor too low. The former position deprives the upper part of the body of its necessary circulation, and the latter allows too great a flow of blood to the head, which in all cases is injurious. A very high pillow, and very soft bed are frequently the causes of malformation; for the attitude into which the body falls, is that of the loins sinking in the bed, the upper shoulder pushed out of its natural place, the back twisted, and the neck turned awry.

260. To Renovate Feathers.—A process has been patented, for renovating feathers by steam, which, we believe, performs the work properly. But a more economical method is to empty the contents of the bed into a bag of coarse hemp, or thin linen, which is to be beaten with rods for some time, when much of the dust accumulated will escape through the openings of the bag. They must then be taken into a room, and the loosened or cleared feathers returned by handfuls into the new ticking, carefully picking out all the quill parts from the light feathers. While this process is going on, the doors and windows of the room should be kept carefully closed, to prevent the feathers from flying about. As there will be some deficiency of bulk by this process, it would be as well to have a reserve stock in readiness to make good the abstracted portion. For this purpose, the feathers of poultry should be collected from time to time, put into strong brown paper bags, and well dried by puting them in an oven after the usual baking processes have been performed. They should then be taken out, the quill parts cut carefully, and the feathers cleaned; then restored to the paper bags, and kept in a dry place.

261. To Remove Grease Spots.—These unsightly marks may be removed from various surfaces as follows:

262. From Floorings of Wood or Stone.—Make a strong infusion of potash with boiling water; add to it as much quicklime as will bring it to the consistence of thick cream; let it stand for a night, then pour off the clear part and bottle it for use. When wanted, warm a little of it; pour it upon the spots, and after it has been on them for a few minutes, scour it off with warm water and soap. When put upon stone, it is best to let it remain all night; and if the stain be a very bad one, a little powdered hot lime may be sprinkled over it before the infusion is applied.

263. Another Method of removing grease from boards or marble, is to make a paste with fuller's earth and hot water; cover the spots therewith, and the next day scour it off with soft soap.

264. From Cloth.—Moisten the stains with a few drops of concentrated solution of subcarbonate of potash; rub the parts between the fingers, and then wash the cloth with a little warm water. Benzine is also used for this purpose.

265. From Silk.—Lay a piece of woollen cloth or baize upon a table, and on this lay the silk with the right side downwards; then cover it with a piece of brown paper, and apply a flat iron just hot enough to scorch the paper. Remove the iron and rub the stained part briskly with a piece of cap paper.

266. From Velvet.—To remove grease from velvet, pour a little chloroform on the spot, and rub it with a clean flannel cloth until quite dry; then hang the garment in the air to rid it of the smell.

267. From Paper.—The most simple method is to wash the part with ether, then place it between sheets of white blotting paper and press it with a hot iron. This method does not discolor the paper.

268. **Wash for Removing Grease and other Spots.**—In addition to the methods already described, we give the following excellent wash, which may be used upon almost any kind of garment, as it does not injure the texture: Benzine, twenty ounces; alcohol, five ounces; ether, two drachms; spirits of ammonia, one drachm. Mix and bottle for use. The mixture should be applied with a small sponge.

269. **The Aquarium.**—The principles upon which this really elegant and instructive parlor ornament is founded, are very simple, and may be thus stated. All animal life, whether terrestrial or aquatic, is sustained by a due supply of oxygen. This supply, when exhausted by the breathing organs of aquatic animals, is renewed through the medium of vegetation which generates oxygen when exposed to the action of the sun's rays. Carbonic acid gas is the result of ex-

hausted air: in other words, it is the refuse of vital air after it has performed its invigorating functions upon animal life. This carbonic acid gas is the food of plants. Thus what would prove fatal to animal life if not withdrawn is the very support of vegetable life, and this system of compensation renders plants and animals self-supporting. But both plants and animals *die*. When the latter cease to breathe, it is easy to remove their bodies from any receptacle so much under observation as the aquarium. But a certain portion of its vegetable occupants are always dying. Hence the necessity for the introduction of an agent (*the Molluscœ*), whose proper occupation it is to remove all such decaying matters, whose food in short is putrefaction. An aquarium, then, is a little world of animal life; for the due regulation of which, the following particulars are to be attended to:

270. The Tank or Vase.—The form of the vessel is immaterial: the familiar fish-globe, or vase will do, and no great expense need *necessarily* be incurred in that direction. But the most elegant and useful vessels are those of a rectangular form, as a much clearer view of the contents can be obtained through a plain, than through a curved glass. The octagonal form is

well adapted for standing on a round table. Tanks are now constructed with cast-iron frames, the sides of which are glass, and the base, slate. These may be obtained, of various shapes, and sizes, and at prices ranging from five, to twenty-five dollars. Those of our readers who reside in the vicinity of potteries, may have earthenware tanks constructed; the bottom, and ends should be formed together, with grooves near the edge for the reception of the glass sides. Before it is burned, rough masses of clay may be attached, in imitation of rockwork. They should be made of fine clay, and be thickly glazed on the outside. The glass may be fastened in, with the following cement:—Dissolve eight ounces of shellac in one pint of naphtha or spirit of wine. When wanted for use, stir a small quantity of this solution into a smooth thin paste, with whiting, and apply immediately. If much is mixed up at once it is apt to dry on the outside before it can be used. When there is not a great body of it this cement will set very hard in a few days, and is not injured by water. When the poisonous nature of red-lead is not an objection, it will form a still harder cement than whiting.

271. Furnishing the Aquarium.—Having selected your vessel, the next thing in order is to prepare it for the reception of its intended inhabitants. In this matter we shall confine ourselves to general rules; leaving it to the individual taste and fancy of the Aquarian, to decide what is most suitable and ornamental for the tank or vase he is furnishing.

272. Rock-work.—The introduction of rock-work requires taste and judgment; any artificial-looking erection, giving to the tank or vase the appearance of a toy, rather than that of an intellectual ornament. Always try to imitate nature as nearly as possible, and remember that the plants and animals deserve the first consideration. In small Aquariums, a smooth bottom with a few rugged pieces of stone, is preferable to a massive arch; which burdens the vessel unneccessarily, and causes you to lose sight of many of the smaller and most valued specimens, who are much addicted to hidding in the crevices.

In larger tanks more licence is, of course, allowable; and a very pretty effect may be produced by carrying the rock-work above the surface of the water, leaving plenty of cavities in which to place ferns, etc. You can then have a circular groove cut in the stone in which to rest the base of a glass shade, thus forming a Wardian case, and enabling you to preserve the most delicate plants the whole year through. Arches should never be introduced into round or octagonal vessels. The only rock-work admissible, being a rude pile of stones. It will scarcely be necessary to warn our readers against the introduction of *marine* shells and coral into their miniature *fresh*-water lake.

273. The Bottom.—Very coarse sand, or sifted pebbles, are generally used to cover the bottom. They must be thoroughly washed, or may be the means of introducing some very unwelcome visitors; and need not be more than an inch in depth. If these are not procurable, fine gravel is a very good substitute. Silver, red, or yellow sands are undoubtedly objectionable, but, if washed until the water runs off quite clear, may be used on an emergency.

274. Planting.—As the picturesque appearance of the Aquarium depends in a great measure on the effect produced by the plants, great care should be taken in their selection, and time allowed for them to get firmly rooted before the introduction of their living companions. The best method of planting is to attach the bottom of the stem to a stone with a piece of thread and sink it in the sand. It will also be well to support the stem above ground with a few pebbles. Some plants should be gathered into bunches and set in the same way; others look

well when sprouting from crevices in the rock-work.

275. WATER.—This should be as clear as crystal, and great heed must be taken that it be of the right description, or very serious consequences may be the result. If possible it should be obtained from a river or brook, but, should there be no running stream in the neighborhood, spring or rain-water must be resorted to. As the former frequently contains saline matter, which will prove injurious to the vegetation and to the fish, it should always be proved with a few of the less valued specimens, before introducing the entire stock. As most spring-water is very hard, it should be allowed to stand a few days, in order to be softened by the plants. Rain-water may be used without danger, but will require to be passed at least once, and sometimes twice, through the filter, in order to render it clear; for, although it may look perfectly bright in a tumbler, it will present a very different appearance when contained in vessels a foot or more from side to side. Water which has been boiled or excessively heated, has been deprived of its oxygen, and should not be used for Aquarian purposes.

276. ISLAND.—If there is no rock-work above the surface, it is desirable to float a piece of cork with sloping edges, to serve as a refuge for the *amphibia*, which cannot exist entirely in the water. For this purpose, the cork should be burned black and coated with sand. Care must be taken that the cement used is not injurious. A few small ferns may be planted in the centre, when the size will admit of a hole about two inches in diameter, which should be cut as deep as possible, and coated inside with gutta percha. Great taste may be displayed in making the miniature island look as natural as possible; and small frogs and the various kinds of newts look very pretty basking in the sun among the ferns.

277. COVERS.—These are sometimes necessary to prevent the more lively specimens from leaping or crawling out.

A piece of muslin or green gauze will answer the purpose, but a cover of perforated zinc or glass is less troublesome. If plain glass is used, it should be rested on small pieces of cork, in order to admit air.

278. STANDS.—The weight of an Aquarium necessitates a very strong support, and when a suitable table is not to be had, an old box covered with green baize, may be substituted. Empty barrels may also be converted into stands for garden Aquaria.

279. STOCKING THE AQUARIUM.—The great mistake of beginners, and one which is sure to prove fatal to a portion of the collection is, *over crowding*. The better plan is to add the specimens by degrees, this will afford a better opportunity for remarking the peculiar characteristics of the pets, and also, of regulating the relative proportions of animal and vegetable life. As the most careful management will not always prevent accident, experience may thus be gained without much risk.

280. STOCKING QUICKLY.—Notwithstanding the injunction, not to be in too great a hurry; it is well to know how to act when circumstances will not allow of taking things leisurely. As a general rule *bottom* plants are best, but when time is an object, *surface* plants are preferable, as they are established as soon as introduced. A tank or jar may be stocked in a few minutes by having the water well aerated, and completely covering the top with Water Starwort. The whole stock may then be added, with the exception of the mollusks, which had better be put in three or four days afterwards. As this style of vegetation is not very ornamental, the better plan, in cases of emergency, is to convert a bucket or foot-bath into a temporary Aquarium, and get the vase or tank well seasoned and the vegetation strengthened previous to the introduction of the animals.

281. PLANTS.—The "Frog-bit," tops of the "Water Crowfoot," and other broadly lobed species, as they are good purveyors of oxygen, and afford a pleasant shade for the fishes and resting place for the amphibia, should on no account be omitted. The other floating plants which are most easily met with are—

The Hornwort lives well, and is very useful.

The floating Pondweed, common and pretty.

Water Starwort, better adapted for entomological jars than the Aquarium, except when used as a bottom plant.

The Duckweeds, also very pretty additions to the cabinet.

The plant of primary importance to the Aquarian is undoubtedly the

Valisneria spiralis, which grows freely, causes little refuse and has a very charming appearance. It requires to be firmly rooted, as do also all the plants contained in the following list, which are arranged in the order in which they are most to be recommended for the Aquarium:—

The New Water Weed, or Water Thyme, for ordinary purposes a most useful plant, very pretty, grows rapidly, and merely requires to be tied in bunches and attached to a stone.

The Water Crowfoot, grows very rapidly, and to be found in nearly every pond or ditch.

The Pondweeds may be found in great variety, and are very easily cultivated.

The Water Milfoil, a slender plant, which should not be overlooked.

The Water Soldier, not uncommon, and should be used a centre or background to more delicate plants.

The Water Plantain.—Peculiarly adapted for the Aquarium, and may be had of the dealers.

The Awl-wort.—Flowers under water, and of pleasing appearance.

The Water Violet.—Well worth the trouble of seeking, and grows well with care.

282. FISH.—There is a tribe of fishes, all the varieties of which will, without an exception, thrive well in the Aquarium. This is the Carp or Roach family. It includes

The Common Carp, not so valuable as

The Prussian Carp, which, with

The Golden Carp, have the decided preference over every other fish.

The Crucian Carp, scarce.

The Roach, and

The Dace, very lively and pretty, but delicate in summer.

The Tench, hardy but not handsome.

The Minnow, indispensable.

The Perch is very dangerous, and should not be introduced into general collections. The Salmon tribe can only be kept in very extensive tanks, as also Pike, which are so voracious that they will attack and destroy fishes half as large again as themselves.

283. MOLLUSCA.—The *Planorbis corneus* is undoubtedly the most ornamental and useful, because least dangerous snail: it does little harm to the plants, but, at the same time, does little work, so that they require to be numerous in order to perform their duty efficiently. The *Paludina vivipara* is of next importance, and will answer well where there is only strong vegetation. *Lymnea stagnalis*, the common marsh snail, prefers feeding on the plants themselves to the decaying matter, and should therefore be excluded.

284. REPTILES.—The various kinds of newts, frogs, and tadpoles, are among the most interesting tenants of an Aquarium, and should on no account be omitted.

285. RELATIVE PROPORTIONS OF THE CONTENTS.—It is quite impossible to give any rules as to the relative proportions of animal and vegetable life to be introduced into the Aquarium; every one must gain that knowledge from experience; but upon gene-

ral principles, two small fish, two or three snails, and one small plant, is the maximum quantity allowable for each gallon of water. It at once denotes bad management when you cannot render the three agencies we have mentioned (combined with light and the proper amount of heat) sufficient to keep the Aquarium in a flourishing condition. The aim should be to establish a continuous circle of reciprocal action, and this can only be attained by an exact imitation of nature.

286. CHANGING THE WATER.—When the Aquarium is firmly established, change of water will be found quite unnecessary, a small quantity only requiring to be added from time to time in order to compensate for evaporation. Until such is the case, however, and experience has been gained, a partial change or artificial aeration is sometimes indispensable, and in cases of accident it will often be advisable to remove the contents altogether, thoroughly cleanse your tank, and start afresh. For this purpose a siphon should be provided, which may be either of glass or gutta percha. This simple contrivance merely consists of a tube, bent so as to let one end be longer than the other, the shorter being placed in the Aquarium, and the longer over the vessel into which the water is to be emptied; upon the air being extracted, the water rushes in to supply its place, and will afterwards flow in an uninterrupted stream until it attains its own level.

287. AERATION.—Whenever the fishes come to the surface, for the purpose of gulping air, it is a sure sign of the absence of the vivifying principle, and in such cases the water must be either renewed or artificially supplied with oxygen. When the size of the tank will admit of it, a tube connected with a pair of bellows should be conducted into it, in order to supply air whenever there seems to be an exhaustion of that indispensable commodity. When a fountain can be attached to an Aquarium, the necessity for any other mode of aeration is obviated.

288. REGULATION OF TEMPERATURE must be carefully attended to, both in summer and winter. In order to indicate when the water is too warm or cold, a small thermometer should be suspended in it. When it rises above 65 degrees a wet cloth may be placed outside the glass, and when it sinks below 45 degrees it shows that a fire is necessary in the room. Some fishes and plants will bear a much higher or lower temperature than others, and it will, therefore, be advisable in winter to divide the specimens, placing the most delicate in the warmest situation.

289. ASPECT.—The unchecked action of the sun on the Aquarium, for any lengthened period, will invariably render the water turbid, and give rise to such a rapid confervoid growth that the mollusca will be insufficient for its removal. The best aspect is either south-east or south-west. When the window looks due south it will either be found requisite to construct a screen of green muslin, or to draw down the blinds at stated periods—the former course being much the least dangerous. In a northerly aspect the vivaries will give a great deal more trouble with much less chance of success, no fresh-water plants thriving well unless exposed for at least an hour every day to the direct influence of the sun's rays. By a little management it is easy to construct a screen which will admit the sun for two hours daily, and give a very agreeable light for the rest of the day.

290. REMOVING SPECIMENS.—Every Aquarian should possess a small hand-net, about three inches in diameter, and made either of gauze or fine net-work. It can easily be constructed at home by twisting a piece of brass wire into a ring and affixing it to a small cane, or can be purchased at any fishing tackle shop. Great care should be taken not to handle the fishes or disturb them un-

necessarily, another vessel always being immediately at hand ready for their reception.

291. The Aviary.—Among the many interesting objects, with which a home may be surrounded, none deserve more attention than the aviary or bird-house. The situation of the aviary will, of course, depend upon the space which the builder has at his disposal, but, when possible, the garden or lawn should be chosen. It should be 12 feet long, 10 wide, and 12 high. The back should be constructed of boards tightly jointed, and the ends and front, of wire netting; the meshes of which, should be small enough to prevent the escape of any of the occupants. The whole should then be covered with a perfectly water-tight roof. The style of architecture, and degree of ornamentation are matters of taste and fancy, and that of some of the smaller bird cages may be adopted. The floor of the aviary may be made of wood, or of earthen tiles; but if of wood, a bed of rough gravel, 8 inches deep, should be laid beneath, to prevent the burrowing of rats and other vermin. The perches of the aviary should consist of four poles, about 8 feet high, and an inch and a half in diameter. These should be securely nailed to the floor, and on the top of them square perches should be fastened, in such a manner as to meet each other, and thus form a kind of gallery around. At intervals of ten or twelve inches apart, round perches, about half a foot in length, and a quarter of an inch in diameter, should be inserted. In the centre space, a fountain may be introduced, for the double purpose of utility and effect. Other perches should be disposed in various parts of the aviary most favorable to light, sunshine, and warmth. The door of the aviary should be made of glass, and open outwards, and all the interior fittings well and strongly painted. As birds are peculiarly susceptible to cold, the aviary must be kept warm in winter, and to accomplish this, cover the wire-work with green baize, and introduce a stove, regulated to a proper temperature. A curtain should also be constructed, to be drawn partially or wholly down in damp and foggy weather. The birds should be selected with care; and those whose natures are too pugnacious to admit of being domesticated, and also those who are too delicate and tender to live in the midst of so much excitement, must be excluded.

292. Canaries.—Especial care must be taken to keep the canary scrupulously clean. For this purpose, the cage should be strewed every morning with clean sand, or rather, fine gravel, for small pebbles are *absolutely essential* to life and health in cage-birds; fresh water must be given every day, both for drinking and bathing; the latter being in a shallow vessel; and, during the moulting season, a small bit of iron should be put into the water for drinking. The food of a canary should consist principally of *summer* rape seed, that is, of those small *brown* rape seeds which are obtained from plants sown in the spring, and which ripen during the summer; large and *black* rape seeds, on the contrary, are produced by such plants as are sown in autumn and reaped in spring. A little chickweed in spring, lettuce leaves in summer, and endive in autumn, with slices of sweet apple in winter, may be safely given; but bread and sugar ought to be generally avoided. Occasionally, also, a few poppy or canary seeds, and a small quantity of bruised hemp seed may be added, but the last very sparingly. Cleanliness, simple food, and fresh but not *cold* air, are essential to the well-being of a canary. During the winter the cage should never be hung in a room without a fire, but even then, when the air is mild, and the sun shines bright, the little prisoner will be refreshed by having the window open.

293. The Breeding of Canaries requires additional accommodation. For this purpose a large cage

must be provided, and a shelf, within a few inches of the top, should be made to project from the back, and a partition run up from the edge of the shelf to the upper wires. On this shelf two open boxes or baskets, about two inches deep, are to be placed for the birds to build in, the entrance into which is from two holes made in the partition. A net-bag, filled with moss, hair, down, and feathers, suspended from the roof near the perches, completes the fitting of this habitation. The female ordinarily lays six eggs, one every day. The period of incubation is thirteen days. When the young are hatched, finely minced egg and bread should be placed near the feeding-trough, to enable the parents to carry suitable food to their young. When they are a month old, put them into separate cages.

294. **Bullfinch.**—The bullfinch is a quiet bird, and may be allowed to range the room, unless some particular reason exist why it should be kept in confinement. The food may consist of rape and hemp seed, with occasionally a little green food, such as watercress or lettuce, with plenty of pure water. The bullfinch is an exceedingly affectionate bird; very averse, both when wild and confined, to being separated from his mate, and when with her, continually caressing and calling to her. They breed three or four times a year. The female lays from two to six eggs, of a bluish white, with a circle of violet and brown spots at the large end. The young birds are hatched in a fortnight. The male bullfinch may be distinguished from the female by a slight red tinge upon the breast. The bullfinch is one of the few birds that can be induced to learn a tune which may be reduced to the form of musical notation. To accomplish this, the young birds are put into classes, of five to ten each, placed in a dark room, and a bird-organ played for them whenever they are fed. The birds finally associate the music with the feeding and when hungry, will sing a few notes of the tune they hear daily. Those who do so are at once removed to a more cheerful room, and thus encouraged, they readily learn more. They are generally capable of learning and retaining three distinct tunes; but the utmost perfection is attained by teaching them one air only, together with the usual short flourish or prelude.

295. **The Mocking Bird.**—This celebrated song bird is a resident of the southern States, but visits nearly every section of the country during the summer months. The following interesting description is given by Wilson, in his American Ornithology: "The plumage of the mocking bird, though none of the homeliest, has nothing gaudy or brilliant in it; and, had he nothing else to recommend him, would scarcely entitle him to notice; but his figure is well proportioned, and even handsome. The ease, elegance, and rapidity of his movements, the animation of his eye, and the intelligence he displays in listening and laying up lessons from almost every species of the feathered creation within his hearing, are really surprising, and mark the peculiarity of his genius. To these qualities we may add that of a voice full, strong, and musical, and capable of almost every modulation, from the clear, mellow tones of the wood-thrush, to the savage scream of the bald-eagle. In measure and accent, he faithfully follows his originals. In force and sweetness of expression, he greatly improves upon them. In his native groves, mounted on the top of a tall bush or half-grown tree, in the dawn of dewy morning, while the woods are already vocal with a multitude of warblers, his admirable song rises pre-eminent over every competitor. The ear can listen to *his* music alone, to which that of all the others seems a mere accompaniment. Neither is this strain altogether imitative; his own native notes, which are easily distinguishable, are bold and full, and varied seemingly beyond

all limits. They consist of short expressions, of two, three, or at the most, five or six syllables, generally interspersed with imitations, and all of them uttered with great emphasis and rapidity, and continued with undiminished ardor for half an hour or an hour at a time. While thus exerting himself, a bystander destitute of sight, would suppose that the whole feathered tribes had assembled together on a trial of skill, each striving to produce his utmost effect; so perfect are his imitations.

"The mocking bird loses little of the power and energy of his song by confinement. In his domesticated state, when he commences his career of song, it is impossible to stand by uninterested. During the exhibition of his powers, he spreads his wings, expands his tail, and throws himself around the cage in all the ecstasy of enthusiasm; seeming not only to sing, but to dance, keeping time to the measure to his own music. Both in his native and domesticated state, he frequently serenades us the livelong night, making the whole neighborhood ring with his inimitable medley."

Mocking birds build their nests early in April. The female lays four or five eggs; the young birds are hatched in fourteen days, and two broods are generally produced in a season. The birds, if intended for the cage, should be taken when they are half fledged, kept very warm, and fed every half hour with milk, thickened with corn-meal. A little fresh meat, finely minced, should occasionally be given. After they begin to eat of their own accord, a few cherries, strawberries, etc., should be given them. When full grown, their food should consist of bird seed, the various kinds of berries, fresh meat once a week, and grasshoppers; they should also be supplied with plenty of clean, fine gravel. The male bird may be distinguished from the female by the breadth and purity of the white on the wings. If the young bird is to be taught by an old one, the best singer should be selected, and no other allowed to be with him. If the bird-organ, flute, or mouth whistle is used, it should be begun early, and continued by the same person, until the scholar, who is apt, has learned his lesson.

296. Parrots may best be taught to talk by covering the cage at night, or rather in the evening, and then repeating to them slowly and distinctly the words they are desired to learn. They should be kept away from places where they would be liable to hear disagreeable noises, such as street cries, and the whistling and shouts of boys at play, or they will imitate them, and become too noisy to be tolerated. Parrots may be fed upon soaked bread, biscuit, mashed potatoes, and rape seed. They are fond of nuts. Cayenne pepper, sprinkled upon a bone, and given to them occasionally, is said to be very beneficial. They should be kept very clean, and allowed a bath frequently. It would be difficult to point out modes of treatment of the diseases of parrots. When they become affected in any way, it is best to keep them warm, change their food for a time, and give them lukewarm water to bathe in.

297. Swans.—Tame swans are never kept except there be a piece of water for them to swim in, to which they are a great ornament; and it is necessary that the water should be clear, towards keeping it in which condition they assist. Its food is very similar to that of the goose. The swan lays early in the spring, only once a year, and has seldom more than three eggs. The male assists in hatching. They require little attention in breeding, except the appropriation of a small house for their young, for they usually build their nests in some secluded spot near the water, and prefer an island, if there is one. The cygnets are dark colored when first hatched, and do not become white till their second year. Their bringing up is left to the mother, and they may or may not have food supplied, according to the locality.

298. Taming Birds.—A diffi-

culty is sometimes experienced in taming birds to a sufficient degree to set them at liberty from the cage, and allow them to fly about the room. The following is the most approved method for accomplishing this: Cut from the inner plume of the pen-feathers, a larger or smaller portion, according to the wildness of the bird; then touch the nostrils of the bird with bergamot, or any other odorous oil, by which it is rendered so stupefied for a time as to perch quietly on the finger, or to hop from one finger to another. As soon as it sits quietly on any one finger, another finger must be placed in such a position as to cause the bird to step upon it; and so soon as it is accustomed to hop quietly from one finger to another, the chief difficulty is overcome; for the bird, gradually arriving to a sense of conciousness, and perceiving that it is not treated roughly, is brought to pay obedience to its master's commands.

299. Bird Food.—The following food is suitable for birds generally: Thoroughly soak stale bread crumbs in cold water, press the water out, pour milk over the bread, and mix with it two-thirds of its own weight of barley meal. This should only be prepared in quantity sufficient to last for one day.

300. The Hutch.—This is a species of hovel, in which rabbits, guinea-pigs, etc., are kept. The hutch should stand upon a dry foundation, and be well ventilated. When intended for breeding, the hutch should have two compartments, separated by a sliding door, which can be put up or down, as occasion may require. The floor should be planed smooth, and made to slant backwards, so as to allow the wet to run off. The front of the hutch should have two doors, one for the sleeping apartment, made of boards, and another for the feeding-room, made of wire-work, which should be sufficiently open to afford a good view of the pets. The edges of the doorway should be cased with tin, as should also the edges of the feeding-trough, and, in short, any other part that the animal can get at with the teeth. The bottom of the hutch should have a long narrow piece of wood in front, below the doors, which should be movable, so as to allow cleaning to be more readily performed. A common hoe, and a small broom, are convenient for cleaning them.

301. Rabbits.—The breeding and rearing of rabbits affords an agreeable pastime for youth. In choosing rabbits for stock, it will be found that those which are in color nearest the wild ones, are in general the most hardy. After the black, or black and white, then the white, the sandy, and lastly the grey and white. The young fancier may either purchase a doe with young, or he may obtain four or five young ones. He should take especial care that the young ones are in good health, and that they are of full size and strong build. The feeding of rabbits is a most important point. On this mainly depends the prosperity and health of the stock. Rabbits should be fed three times a day; and the principal thing to be attended to is, always to give a good deal more dry than succulent food. Almost all the vegetables and roots used for the table may be given to rabbits; in preference to all others, celery, parsley, and the roots and tops of carrots; turnips, parsnips, and even potatoes in a raw state, may be occasionally given on an emergency, when better roots or good greens are scarce. One of the most common faults of rabbit fanciers is, first to overfeed their pets, and afterwards to neglect and half-starve them. Not only do thoughtless boys forget to feed the objects of their care, but frequently to suffer them to become diseased, for want of attention to cleanliness. Such neglect is cruel in the extreme. Rabbits should have their hutches cleaned out every morning, and require many little attentions to provide for their comfort and health; and those who are not disposed to afford this, ought not to venture on rabbit keeping.

302. Guinea-pig.—This is an extremely timid, delicate, docile, and elegant animal, and is chiefly kept for amusement by young persons. They are remarkably cleanly in their habits, but emit nevertheless a disagreeable smell, which renders their admission into the dwelling-house objectionable. Their coats are extremely beautiful, being sleek and glossy and variously colored, black, white, orange, and mixtures of the three, called orange tortoise-shell; these latter are the most highly prized, particularly where the dark colors predominate. The most appropriate place to keep them in, is a hutch similar to that used for rabbits; only somewhat smaller. Their ordinary food should be oats given twice a day. They are also partial to parsley, carrots, and fruits of all kinds, especially apples; bread dipped in milk or water is much relished by them. Though naturally tame and gentle, they are incapable of strong attachment.

303. White Mice.—These little animals are so gentle and familiar, that even when suffered to run loose about the room, they will not attempt to escape. The principal food for white mice is bread and milk. Cages are sometimes fitted up like houses, with separate rooms and staircases, which the mice are obliged to ascend in order to obtain their food; which is usually placed in the highest story.. Particular care should be taken to keep the cage thoroughly clean, for which purpose it should be attended to every morning.

304. The Squirrel.—This is one of the prettiest and most engaging of all domestic pets. The cage in which it is confined should be at least six feet long and four feet high; it should also be provided with perches like the branches of a tree. There should be a sleeping-box, opening with a door behind, for the purpose of cleaning it; let there be also a food-box and water-pan, nicely adjusted. The edges of the cage should be covered with tin, or the animal will soon set himself at liberty with his teeth. The moveable or turn-about cage, so much in vogue, is an unnatural habitation, and conduces neither to the animal's health nor recreation. Squirrels may be fed on all kinds of fruits, particularly those of the nut kind, such as filberts, wood nuts, walnuts, almonds, acorns, beech-nuts; and they are very fond of the cones of the fir-tree. They will also sip milk, and eat bread and milk with avidity. Some squirrels are very difficult to tame; and when this is attempted, they must be taken from the nest at a very early age. With care, attention, and method, the squirrel may be brought to know, love, and obey his keeper, and to come at his call. They may be also taught a number of entertaining tricks.

305. The Management of Dogs.—In the management of dogs, it is essential that the kennel should be in a healthy situation; and that it should be dry, warm, and airy. Cleanliness should never be wanting; neglect in this particular frequently inducing many cutaneous and other diseases. In the feeding of dogs, a mixture of both animal and vegetable substances may be considered as the most proper food; the proportions of each are best determined by the exertions of the body, for animal food affords most nutriment; so when the bodily exertions are great, as those of hounds, greyhounds, pointers, etc., in their working season, then a large proportion of animal matter forms the best food. On the contrary, when the season of rest arrives, milder and less nutritious food (but such as is equally bulky) is required; consequently, at this period, a larger proportion of vegetable matter is equal to their wants. Meat boiled for dogs, and the liquor in which it is boiled, thickened with barleymeal or oatmeal, forms capital food. When they are washed, no soap should be used, as it prevents their licking themselves, and they may thus become habitually dirty. The distemper is

liable to attack dogs from four months to four years old. It prevails most in spring and autumn. The disease generally manifests itself by a dulness of the eye, husky cough, shivering, loss of appetite and energy, and occasional fits. During the prevalence of this complaint dogs should be allowed to run on the grass, their diet should be spare, and a little sulphur placed in their water. To administer medicine to a dog, place him, if of moderate size only, upright on his hind legs, between the knees of a seated person. Apply a napkin round his shoulders, bringing it forward over the fore legs, by which he is secured from resisting. The mouth being now forced open by the pressure of the fore-finger and thumb upon the lip of the upper jaw, the medicine can be conveniently introduced with the other hand, and passed sufficiently far into the throat to ensure its not being returned. The mouth should now be closed, and kept so until the matter given is seen to pass down.

306. The Pointer.—This species of dog is more perfectly under the control of the sportsman than any other; but this degree of perfection is arrived at by dint of education and training; which process is comprised in the following rules:—The first lesson inculcated is that of passive obedience, and this enforced by the infliction of severity as lenient as the case will admit. The dog is taken into a garden or field, and a strong cord about eighteen or twenty yards long is tied to his collar. The sportsman calls the dog to him, looks earnestly at him, gently presses him to the ground, and several times will make him *down* immediately, and take him to the place where the birds rose. Chide him with "Steady!" "How dare you?" Use no whip, but scold him well, and be assured that he will be more cautious. If possible, kill on the next chance. The moment the bird is down, the dog will probably rush in and seize it. He must be met with the same rebuff, "Down charge!" If he do not obey, he must receive a stroke of the whip. The gun being again charged, the bird is sought for, and the dog is allowed to see it and play with it for a minute before it is put in the bag. He will become thoroughly fond of the sport, and his fondness will increase with each bird that is killed. At every time, however, whether he kills or misses, the sportsman should make the dog "Down charge!" and never allow him to rise until he has loaded. The attachment of the dog should be gained by feeding and caressing him, but every now and then inculcating a lesson of obedience, teaching him that every gambol must be under the control of the master; frequently checking him in the midst of his gambols with the order of "Down charge!" patting him when he is promptly obedient; but scolding or moderately chastising him, when there is any reluctance to obey.

307. Newfoundland Dog.—This animal is one of the most noble of the canine species. He is remarkable for faithful attachment to his master; for great strength, sagacity, and perseverance; for good temper, patience, and quiet fondness to all who belong to the household, as well as for being a fearless protector of whatever is consigned to his charge. In the water he is of as much service as on land, and is frequently instrumental in saving human life when threatened with a watery grave.

308. Shaving.—This is a process which may be performed in a slovenly and bungling manner, or it may be done with great art and dexterity. In the first place, the hair should be softened by soaking it in water or a lather of soap, by which it is rendered much more soft and more readily cut. A strong lather of soap is usually applied; which, in the first place, acts as a softener from the water; next as a lubricating fluid it prevents the razor from sticking to the skin, or, as it were, stumbling over its asperities; and lastly, from its semi-solid consistence, it affords a support to the hair when

opposed to the edge of the razor. The soap used should be of such a nature as to make a strong lather full of small bubbles, and it should be as free from all superfluous alkali as possible, to avoid irritating the skin. In applying it, it is better to wash the skin beforehand, then brush on the lather with the shaving brush, working it well into the skin, and let it remain to soften the hair for a few minutes, during which any other part of the toilet may be performed. Then apply another coat of lather, and at once proceed to take off the beard with the razor, warmed to the temperature of the skin, or rather above it. Most people find it better to stretch the skin by the other hand, but a very skilful shaver manages the act without this process. The razor should be drawn in a gently sawing manner across the beard not exactly at right angles to it, but nearly so; the art consisting in getting the two angles correctly, and in avoiding the chop instead of the proper sawing motion. By the two angles are meant that made by the surface of the blade with the surface of the skin, and that between its edge and the axis of the hair. The angle with the skin should be as slight as possible, close contact causing adhesion, and thereby impeding the free play of the blade; but anything short of this is the proper mode of holding it. Practice here, however, is the grand point, and without it no one will ever succeed as a shaver. When the head is to be shaved it is better to remove the hair with the scissors to within half an inch, or even less, of the scalp, after which the razor may be used as for the beard, following the direction of the hair, and not meeting it.

309. How to keep Razors in Edge.—As the razor is a most important implement of the male toilet, the keeping it in a fit state for constant and immediate use is an important consideration. To keep a razor in good condition, it should be stropped after using, having previously been dipped in hot water and wiped perfectly dry. Dryness is essential to its preservation; and it is even a good plan to place the razor, after using, before the fire, and to put it away while warm. Razors should always be kept under lock and key, not only to prevent accidents, but to keep them from being used for other than their legitimate purpose. In stropping a razor always draw the razor smoothly and flatly from head to point along the strop. Do not draw first one way and push another. In general, one or two turns will be enough.

310. Razor-Strop Pastes.—This term is applied to certain compositions employed on razor-strops to give them the necessary whetting surface, and are as follows:—

1. Emery reduced to an impalpable powder, two parts; spermaceti ointment, one part; mix together, and rub it over the strop.

2. Jeweller's rouge, black lead, and suet, mixed in equal parts.

3. Prepared putty-powder, one ounce; powdered oxalic acid, a quarter of an ounce; powdered gum, twenty grains; make it into a stiff paste with water, and evenly and thinly spread it over the strop. This last will give a fine edge to the razor, and its efficiency is still increased by being moistened.

311. Advice to Persons Seeking Employment.—To persons seeking employment, various means are available by which it can be obtained. The first thing for a person so situated to do, is to make the fact known as widely and extensively as possible. For this purpose he should go daily to the various establishments in his peculiar line of business and make his want known both to the principals and the assistants; the latter frequently knowing of vacancies existing in other establishments, when there may not happen to be any in their own. These personal applications must be renewed from day to day, until the object is accomplished. And although seeking for employment is frequently an irksome and unsuccessful task, the

applicant, by calling patience and perseverance to his aid, will spare himself from being disheartened, and ultimately achieve success. In seeking employment, much depends upon the applicant's manner and address; if he is rude and ungainly, and expresses himself in an awkward manner, an employer will at once conceive a prejudice against him, and curtly decline the proffer of his services. But if, on the other hand, he is pleasing in his manners and address, he will not only be engaged to fill a vacancy, but will sometimes be taken into the establishment, although no vacancy exists. Applicants for employment should also be scrupulously neat in their attire, and clean in their persons; for an employer naturally argues, that a person who is careless of himself, will be equally so about his business. Another important feature to be borne in mind is punctuality, and in every case where an appointment has been made, it should be kept to the minute. The want of observing this, not only gives an employer a prejudicial impression of the applicant's general habits, but so irritates him for the time being, that the tardy applicant has frequently a message left him, "not to trouble himself to call again." Simultaneously with these personal applications, *advertising* in the public newspapers should be adopted. Those having the largest and widest circulation are usually considered the best mediums, and on general principles, it undoubtedly is so; but when any specific trade or profession is to be appealed to, it is more directly accomplished through the medium of a newspaper in the interests of the particular class.

312. **Umbrellas.**—Our variable climate renders an umbrella a very useful, and indeed almost indispensable article. The best and most expensive umbrellas are made of silk, and, with proper care, they will last for years; others are made of alpaca, and are a good substitute for silk; and a third kind, the cheapest and commonest, are manufactured from gingham. In purchasing an umbrella, it is a question whether it is better to select an expensive or a cheaper one, because these articles are so peculiarly liable to be lost or stolen. On the other hand, it should be borne in mind that the possession of a good umbrella will induce a person to be careful of it, and thus to retain it in his possession when a common one would be lost. Some persons object to carrying umbrellas on the score of trouble, but in point of fact this trouble is imaginary, and not greater than the wearing of a hat. It is certain that a person who is always provided with an umbrella need not fear the weather, and he is also spared those disagreeable contingencies—the chance of getting wet, encroaching under another person's umbrella, or being under the necessity of borrowing one, consequently involving the trouble of returning it, and possibly, as is the case nine times out of ten, inconvenieneing the lender by neglecting to return it. Those who disdain the use of umbrellas, generally appear with shabby hats, soiled bonnet ribbons, wrinkled silk dresses, etc., the consequence of frequent exposure to unexpected showers, to say nothing of colds taken, and other kinds of indisposition. Umbrellas may be made to last a longer time than ordinarily by proper care. When not in use, they should be enveloped in an oilskin case, which may be purchased at the shops where umbrellas are sold. It is important that the handle of the umbrella should terminate with a hook, so that it may be hung up, instead of being laid about in corners, on tables, etc., and thus lost. This hook should also be a natural continuation of the handle, and not fastened on, as, under this condition, it is frequently coming loose and falling off. If the umbrella is wet, do not unfurl it for the purpose of drying it more rapidly. If you do, the whalebones acquire a peculiar set, which it is almost impossible to ob-

viate; they become permanently bent, in consequence of the shrinking of the cloth while drying, and give the umbrella, when closed, a bulging and unseemly appearance. Umbrellas manufactured with steel ribs, should not be kept tightly done up when not in use, as the continual pressure of the steel ribs on the material cause it to wear through those parts, and in the course of time produces a fracture. It is prudent to keep two umbrellas, one for your own use, and one to lend in emergencies, for it is proverbial that borrowed umbrellas are never returned, or if returned, not until they are half worn out, and the immediate call for them has gone by.

313. Correct Method of Walking.—To walk gracefully, the body must be erect, but not stiff, and the head held up in such a position that the eyes are directed forward. The tendency to thrust forward the head, and stoop the shoulders, which many persons have, must be avoided, as being not only awkward but injurious. Let the head, then, be held erect, the *chin* be kept close to the neck, and all unnatural movements, such as strutting and pomposity, be avoided. An easy, firm, and erect posture is alone desirable. In walking, it is to be borne in mind that the locomotion is to be performed entirely by the legs, not rolling from side to side, and helping forward each leg alternately by advancing the haunches. In lifting the foot it should not be raised too high, as this causes the knee to be thrown forward to such an extent, as to alter the centre of gravity; producing an unsteady gait and awkward carriage. It also communicates to the clothing of females a jerking motion, which destroys the effect of the most handsome attire. In placing the foot down, the toe, or front part of the foot, should touch the ground first, and not the heel. The toes are to be turned out but not excessively, a habit almost as unsightly as turning the toes in. The arms should move simultaneously with the legs, but easily, and with a moderate degree of motion only. Ladies generally present a more graceful appearance, with one or both of the arms partly raised when walking. Custom leads us to regard the hanging of the arms by the side, on the part of a female, as somewhat too masculine.

314. Walking as an Exercise.—Walking is perhaps the readiest mode of taking exercise, and the one most extensively resorted to. If it brought the upper part of the body as thoroughly into exertion as the lower, it would be perfect, for it is gentle and safe with nearly all except the much debilitated. To render it the more effectual in the upper part of the body, it is well to allow the arms and trunk free play. It is best to walk with a companion, or for some definite object, as the flow of nervous energy will be by these means promoted, and the exercise be rendered, as has already been explained, the more serviceable. Very long or rapid walks should not be attempted by individuals of sedentary habits, nor by weakly persons; their frames are totally unprepared for such violent exertion. When a person who has been long confined at still employments finds himself at liberty to indulge his inclination for a ramble of a few days in the country, he should begin with slow and short marches, and be content therewith till his body is hardened for greater efforts.

315. Care of the Hands.—It is acknowledged by common consent, that dirty hands are marks of slothfulness; while, on the contrary, clean hands are evidences of cleanliness and refinement. The person who has much manual labor to perform, cannot, of course, be expected to keep his hands of that delicate shape and texture, which another person, whose employment is light, may do. But at the same time, it is always possible, under any circumstances, to keep the hands in that state during the intervals of labor, so that they shall not appear dis-

pleasing to the eye. To promote the softness and whiteness of the hands, mild emollient soaps, or those abounding in oil, should alone be used; by which means, also, chaps will generally be prevented. Dirt is more effectually removed by warm water than cold; the hands, however, are liable to become dirty sooner afterwards, and perhaps the best plan is, to remove the dirt with warm water, and afterwards rinse the hands in cold. Washing the hands too frequently has a tendency to discolor them with a brown or tawny hue. After washing, the hands should be carefully dried with a moderately coarse towel; this will promote a free circulation through them, which will ultimately tend to enhance their appearance. Exposure to cold winds and rain is detrimental to the appearance of the hands, and gloves should always be worn. The hands may be kept dry for delicate work by rubbing a little magnesia, or calamine powder over them. In conclusion, it must be observed that an over-anxious care for the state of the hands is to be deprecated. Some persons who are possessed of a small and delicate hand are so vain of it that they are constantly displaying it in an obtrusive manner, which is very offensive to the looker-on. And in some instances the fear of putting the hand out of form, is so great, that every kind of work, and even accomplishments, such as the harp, piano, and guitar are avoided; this is a preposterous error, for the beauty of the hand does not alone consist in whiteness and a statue-like contour, but in certain "expression," which are imparted by the pursuit of suitable occupations, and appropriate accomplishments.

316. Camphor Ice and Glycerine.—Take spermaceti, six ounces; white wax, two ounces; glycerine, two ounces; powdered camphor, one ounce. Melt the spermaceti, and wax, then add the camphor. Apply it to the hands at night before retiring.

317. Rose-water Lotion.—The following lotion will be found an excellent remedy for chapped hands:—Take of borax, two scruples; glycerine, one ounce; rose-water, seven ounces. Mix, and use after thoroughly washing the hands.

318. Camphor Balls.—Take of spermaceti, two ounces; white wax, two ounces; olive oil, (best,) four ounces. Mix together by a gentle heat, and add; camphor one ounce. Stir the mixture until it begins to cool, then pour it into slightly warmed moulds, or egg-cups; this will form hemispherical cakes. These balls are much used to prevent chapping. They may be perfumed according to fancy.

319. Cosmetic Gloves.—These are used for the cure of chaps, and for preserving the general beauty of the hands. They are made as follows: Take white wax, spermaceti, white soap, of each four drachms; mutton suet, one ounce. Melt them over a slow fire, and add olive oil, one ounce and a half; benzoin, one drachm; Peru balsam, one drachm; rose-water, half an ounce; stir until thoroughly mixed, and while still warm apply with a brush, to the inside of an old pair of kid gloves. The gloves are then to be re-turned, blown up, and hung in a cool place to dry. Another method is to beat up the yelks of two fresh eggs with two spoonfuls of oil of sweet almonds; adding thereto half an ounce of rose-water, and two drachms of the tincture of benzoin. To be used as previously directed.

320. The Quality of Carpets.—Carpets are of various kinds, both as regards fabric and manufacture. *Brussels carpets* are composed of a warp and woof of strong linen thread, with worsted threads interwoven. When well made they are very durable. They, however, vary much in quality; the best quality ought to weigh $1\frac{3}{4}$ lb. per yard, but latterly they seldom exceed $1\frac{1}{4}$ lb. per yard. *Wilton carpets* are those having a long pile resembling plush or velvet, and they

have the advantage of being executed in very elegant designs. *Axminster carpets* have a warp and shoot of strong linen with numerous small tufts of differently colored worsted introduced. *Ingrain carpets* are composed of two woolen webs—sometimes three—which intersect each other in such a manner as to produce definite figures. The quality varies according to the fineness of the wool used, weight per given quantity, number of *picks* or threads to the inch, etc. When purchasing carpets, they should be examined to see that they are the same throughout the piece; as the first few yards may be well made, and the balance of the roll be inferior, both in make and material.

321. THE COLORS OF A CARPET.—In choosing a carpet quality is not the only point to be studied. Particular regard should be paid to the colors. For a carpet to be really beautiful, there should be, as in a picture, a judicious disposal of light and shade, with a gradation of very bright and of very dark tints. A most truly chaste and elegant carpet is formed by one color only, but arranged in every variety of shade. The following suggestions will be found worth attending to, in the selection of a carpet:—Light colored carpets are more serviceable than dark ones, because, in wearing, the gradual disappearance of the dyes from the threads is less discernible. Bright colored carpets are most suitable for spacious apartments, because the amount of space covered tends to soften and harmonize tints, which in a small room would be too glaring. The brightest colors of a carpet should always be in the centre, so that the gradual softening off towards the borders of the tints may afford a better ground for the furniture. A sombre colored carpet, such as one of green and black, is best suited for a room very full of furniture; for the combination mentioned controls the brilliancy of the furniture, and gives solidity and tone to the whole. Carpets of brilliant hues are best adapted for furniture made of yellow woods, such as maple, or light oak, whilst for walnut furniture, sombre colored carpets are most suitable; a harmony of contrast being thus established in both instances. For drawing-rooms the best kind of carpet, generally speaking, is one of an elegant pattern and with a preponderance of light colors. For dining-rooms and parlors a somewhat massive pattern and rich warm tint are to be preferred. For bed-rooms the simpler the design the better, while at the same time, the colors should be cheerful without being obtrusive.

322. A CARPET THAT WILL PRODUCE THE BEST EFFECT.—To select a carpet that will produce the best possible effect, it is not enough that it be made in the best manner, that the pattern is excellent, and the distribution of the colors leave nothing to be desired; it is also requisite that the size of the patterns should be proportionate to that of the room, and that the colors of the carpet are in keeping with those of the objects most conspicuous in the apartment. Thus, the colors of the carpet should neither be so brilliant as to destroy the effect of those of the paper and the curtains, nor the contrary. A very brilliant color, such as crimson, in the carpet may be associated with drab or other subdued color in the curtains and paper; but at the same time, a portion of the brilliant color should be introduced into both, as bordering or ornament. Thus a room, with a bright blue or crimson carpet, may have white, yellow, or drab curtains and paper; but blue or crimson bordering or ornaments should be introduced in them to harmonize the whole. It would be bad taste, in the case of the blue carpet, to have green curtains or paper, or with the crimson to have scarlet, because these colors do not accord. A green carpet may have black, red, or white curtains with green borders and ornaments. A yellow carpet may have black curtains and a dark gray paper,

with yellow borders and ornaments. These and other contrasts depend upon the simplest rules of art, and the eye soon informs the sense of that which offends and pleases.

323. Laying Down Carpets.—The most complete way of fitting a carpet to a room is to adjust it to all the recesses and angles; but this is the most expensive method and also entails waste. When economy is an object, the carpet may be square or oblong according to the shape of the room, but not fitted into the recesses; these must be covered in the best manner possible by furniture, oil-cloth, baize, drugget, etc.; or if left bare, painted in oil. A still more economical mode consists in having a border only of carpet round the room, with the middle part covered with a suitable drugget, which will look as though there was a large carpet underneath which the drugget covered. In bedrooms especially, this has the advantage of allowing the carpets to be easily taken up, to be shaken and cleaned. Carpets, also that are not fitted to rooms, can have the wrong side uppermost for a time, to save the other side, which cannot well be done when the carpet is fitted in; they may likewise be reversed in their position, so as to equalize their wear. Thus a square carpet may have its position changed eight times, and an oblong one four times; whereas a fitted carpet cannot be altered in its position except the apartment have no recesses, which is very seldom the case. When it is decided upon having a carpet fitted to a room, an upholsterer's services should be engaged in preference to an inexperienced person, as there are few unconnected with the trade who can lay down a carpet without wasting the material, or causing it to fit loosely and unevenly.

324. Preservation of Carpets.—In this, much depends upon the manner in which they are kept clean; if the dust is suffered to accumulate for too great a length of time, they require to be beaten with extra force, which has the effect of breaking the threads. It is important to the preservation of carpets that the boards are well laid; if there exist large crevices between them, the portion of the carpet that covers the crevices will be worn out in a disproportionately short space of time, and the whole of the carpet thus spoiled. Where this defect in the boards exists, and in fact in all cases, sheets of very thick brown paper should be pasted over the floor previously to laying down the carpet, which will be found an excellent preservative. As soon as a carpet begins to wear, its position should be altered, so that all parts may wear alike. It will also be found better both on the score of cleanliness and economy to have a strip of drugget or crumb-cloth to cover any portion of the carpet where there is the greatest traffic, such as from the door to the fire-place. Scouring carpets, except in extreme cases, is not to be recommended, as the process is liable to injure their texture. Generally speaking, it will be sufficient to beat them perfectly free from dust, and to sweep them afterwards with a carpet-broom as they lie upon the grass. In the meantime the floor should be thoroughly scrubbed and dried, or where it is covered with paper as previously recommended, the surface should be carefully cleaned with a damp flannel, and rubbed with a dry cloth.

325. Cleaning, and Reviving the Colors of a Carpet.—If the carpet be very much soiled, take a pailful of clean cold water, and put into it three gills of ox-gall. Have ready another pail containing clean cold water only. Rub with a soft scrubbing brush some of the ox-gall water on the carpet until a lather is produced. When a conveniently sized portion is done, wash the lather off with a linen cloth dipped in the clean water. Let this water be changed frequently. When all the lather has disappeared, rub the part with a clean dry cloth. When the whole is finished, dry the carpet at an open window.

This mode of cleaning will not only remove stains and dirt, but will also refreshen the colors. Fuller's earth is also used for cleaning carpets, and weak solutions of alum or soda are used for reviving the colors. The crumb of a hot wheaten loaf rubbed over a carpet has been found effective.

326. To Beat a Carpet Properly, hang it upon a stout line, and let three or four persons, each having a pliable stick, beat it with moderate force on the *wrong side:* the sticks used should have cloth tied at the ends in a knot, in order to prevent the carpet from being torn, or the seams split by the sharp end of the stick. When thoroughly beaten on the wrong side, the carpet should be turned and beaten on the right side.

327. Straw Matting may be cleaned with a large coarse cloth dipped in salt and water, and then wiped dry: the salt prevents the matting from turning yellow.

328. Hearth-Rug.—If you cannot obtain a hearth-rug that exactly corresponds with the carpet, get one entirely different; for a decided contrast looks better than a bad match.

329. Mats.—These articles of domestic use are employed for the purpose of protecting tables, carpets, floor-cloth, etc. Table-mats are usually made of wicker-work or willow, of various sizes, according to the dimensions of the dishes which they are to be placed beneath. By thus interposing the mat between the heated dishes and the table, the former are prevented from doing injury to the latter. These articles are inexpensive, and will last a long time. Mats placed at the entrance of passages, rooms, etc., hold an important place in domestic economy, by preventing dirt from being brought into the house or the apartments; so that the place is not only kept clean, but by rendering frequent sweeping of the carpet less necessary, does not cause it to wear out so soon. The mats placed at outer doors and passages are usually made of rope and rubber; these should be cleaned every morning by beating them against a wall, and then by placing the upper side downwards, and striking the dust out with a broom. A mat made of cocoa-nut fibre, is much used and wears well.

330. Sheepskin Mats, which are at once ornamental and comfortable, are made as follows:—Dissolve a pound of alum and a pound of salt in a gallon of water. Put the skin in soon after it is taken from the sheep, and let it soak for twenty-four hours. Then nail it on an old door or other surface, skin uppermost, till quite dry. Cut it into shape, and line it with a piece of old carpet, to prevent it greasing the floor.

331. Mutual Obligations of Master and Servant.—It is universally admitted that a good master makes a good servant, and one of the best signs of a proper understanding existing between the employer and the employed is furnished by servants remaining for a lengthened period in the same situation. A master should treat his servant with firmness but not with severity; he should lead his servant to understand that when he ordered anything to be done, he expected to be promptly and properly obeyed, without being compelled to reiterate the order. A master should observe habits of regularity in his own proceedings, and thus set an example to those under him, which they are almost sure to follow. A servant should be paid at a fair and just rate for his services; no saving is in reality effected by underpayment, it sometimes makes servants dishonest, and always renders them careless and negligent. As length of service increases, and when the servant has conducted himself well, an occasional augmentation of wages will not be ill-bestowed; or the recognition of fidelity and good service may take the form of some periodical and seasonable gift. A master may advantageously drop occasionally the character of the employer for that of the friend, giving good advice on personal matters, and

making inquiries in connection with their welfare; but on doing this, anything approaching to familiarity should be avoided, nor should such intercourse partake of an inquisitorial character. Servants should never be reproved before strangers; whatever faults they commit should be censured privately; the reproof will then have all the greater force, and the manner of giving it will be appreciated by every sensible servant. A master should carefully avoid commissioning his servant in questionable offices, as, for instance, inducing him to tell a falsehood, or ordering him to commit some mean act by which a petty advantage may be gained. By such a course of conduct all moral restraint will be lost, and the servant will, in all probability, avail himself of similar acts against his master's interest. Family quarrels and disputes should never be carried on in the presence of a servant; such displays have a tendency to lessen the parties in the eyes of the servant, and encourage acts of insubordination. No master should make a confidant of his servant, or intrust him with any secret to his prejudice; this at once gives a servant undue importance, and leads him to take liberties which he would not otherwise dare to contemplate. If a servant is overtaken by illness, he should have kind attention and skilful treatment. Servants should be indulged in occasional holidays and hours of relaxation; under these conditions, labor will be performed with more alacrity and greater interest.

332. THE DUTIES OF A SERVANT TOWARDS HIS EMPLOYER, may be summed up as follows: He should implicitly obey the orders given him, without murmur or dissent. He should also endeavor to gain a knowledge of his employer's habits, and anticipate his wishes, so as to spare the necessity of being continually reminded of duties which he is sure to be called upon to perform. A servant should avoid giving himself airs of consequence, or acting or speaking impertinently; such conduct only serves to display his ignorance, and an unfitness for the situation he holds. All duties should be performed as conscientiously in the employer's absence as in his presence; eye-service is a species of hypocrisy which must be sooner or later detected, with very humiliating consequences. A servant should act with the same zeal and probity on his employer's behalf as he would for his own; any petty advantage gained by an opposite course is more than counterbalanced by the guilty consciousness of wrong, and may be attended by an irretrievable loss of character. Whatever is done or said by the members of a family, which may be repeated to their prejudice, should never be carried beyond the walls of the house; a servant who circulates gossip and scandal respecting the household in which he lives, is unworthy of his trust, and brands himself as a domestic spy and a traitor. A servant should always be true to his promise; thus, when he is permitted leave of absence on condition that he return at a stated time, he should be back at his post to the minute; any extra liberty taken beyond that stipulated for is calculated to irritate an employer, and by shaking his confidence, renders him reluctant to grant a like indulgence on a future occasion. Truthfulness and straightforward conduct should be ever observed; when a servant has committed an error, or has met with some mishap in the performance of his duties, he should not endeavor to screen himself by subterfuge and misrepresentation, but at once acknowledge the fault he has committed or reveal the accident that has befallen him. A servant should be cheerful and willing, and content with the station which has been assigned him; he should remember that there must of necessity be some grades in life lower than others; and, in order that he may reconcile himself to this order of things, he should contrast his lot with that of thousands who are much worse situated than himself.

333. Errors in Speaking.—There are several kinds of errors in speaking. The most objeetionable of them are those in whieh words are employed that are unsuitable to eonvey the meaning intended. Thus, a person wishing to express his intention of going to a given plaee, says, "I *propose* going," when, in fact, he *purposes* going.

334. Other Errors Arise from the substitution of sounds similar to the words whieh should be employed; that is, spurious words instead of genuine ones. Thus, some people say "*renumerative*," when they mean "*remunerative*."

335. Other Errors are Occasioned by imperfeet knowledge of the English grammar. Thus, many people say, "Between you and I," instead of "Between you and *me*." By the misuse of the adjeetive: "What *beautiful* butter!" "What a *niee* landscape!" And by numerous other departures from the rules of grammar, whieh will be pointed out hereafter.

336. By the Mispronunciation of Words.—Many persons say *pronouneiation* instead of *pronunciation;* others say pro-nun'-she-a-shun, instead of pro-nun-ee-a-shun.

337. By the Misdivision of Words and syllables. This defeet makes the words *an ambassador* sound like *a nambassador*, or *an adder* like *a nadder*.

338. By Imperfect Enunciation, as when a person says *hebben* for *heaven*, *ebber*, for *ever*, *joeholate* for *ehoeolate*, ete.

339. Rules and Hints for Correct Speaking.—The following rules and hints are based upon the authority of seholars; and will prove valuable to those who have not the time to pursue a systematie eourse of study.

340. Where two or more adjeetives belong to a nonn with whieh there is oeeasion to use the artiele also, the latter is plaeed before the first adjeetive alone, if referenee is made to a single objeet, but before eaeh, if several objeets are referred to. Thus: "A blaek and white dress," signifies one dress, partly blaek and partly white; "a blaek and *a* white dress," means two dresses, one white and the other blaek.

341. Do not use *them* for those, *this here* for this, *that 'ere* or *that there* for that, *might of*, for might have, or *should of*, for should have. Thus, give me *them* books. That *there* horse is blind. What will you give for this *here* house? He might *of* helped me. They should *of* sent you.

342. Never use *to*, the sign of the infinitive, for the infinitive itself. "I have not seen him, and I am not likely *to*;" should be, "I am not likely to see him."

343. Avoid all improper eontraetions; as, *it's* for it is, *aint* for is not, *haven't* or *haint* for have not, *'taint* for it is not. It's now ready. 'Taint my house. I haint got it. Isn't she beautiful? My book is better'n yours. He is older'n I am.

344. The transitive verbs *lay*, *raise*, and *set*, must not be eonfounded with the intransitive, *lie*, *rise*, and *sit*. We *lay* a thing down, *raise* it up, and *set* it in its plaee. We *lie* abed when we are siek, but *rise* as soon as we are able to *sit* up. The verb *set* is used intransitively when it means to go down or disappear; as the sun *sets*.

345. *Between* is applieable to two objeets only; *among* to three or more.

346. *Who* and *whom* are used in relation to persons, and *whieh* in relation to things. But it was onee eommon to say "the man *which*." This should now be avoided. It is now usual to say, "Our Father *who* art in Heaven," instead of "*which* art in Heaven."

347. *Whose*, is however, sometimes, applied to things as to persons. We may therefore say, "the country *whose* inhabitants are free." [Grammarians differ in opinion upon this subjeet, but general usage justifies the rule.]

348. *Thou* is employed in solemn diseourse, and *you* in common lan-

guage. *Ye* (plural) is also used in serious addresses, and *you* in familiar language.

349. The uses of the word *it* are various and very perplexing to the uneducated. It is not only used to imply persons, but things, and even ideas, and therefore, in speaking or writing, its assistance is constantly required. The perplexity respecting this word arises from the fact that in using it in the construction of a long sentence, sufficient care is not taken to ensure that when *it* is employed it really points out or refers to the object intended. For instance, "It was raining when John set out in his cart to go to the market, and he was delayed so long that it was over before he arrived." Now what is to be understood by this sentence? Was the rain over? or the market? Either or both might be inferred from the construction of the sentence, which, therefore, should be written thus:—"It was raining when John set out in his cart, to go to the market, and he was delayed so long that the market was over before he arrived."

350. *Rule.*—After writing a sentence always look through it, and see that wherever the word *it* is employed, it refers to or carries the mind back to the object which it is intended to point out.

351. The general distinction between *This* and *That*, is, *this* denotes an object present or near, in time or place, *that* to be absent.

352. *These* refers, in the same manner to present objects, while *those* refers to things that are remote.

353. *Who* changes under certain conditions, into *whose* and *whom*. But *that* and *which* always remain the same.

354. *That* may be applied to nouns or subjects of all sorts, as, the *girl that* went to school, the *dog that* bit me, the *ship that* went to Liverpool, the *opinion that* he entertains.

355. The misuse of these pronouns gives rise to more errors in speaking and writing than any other cause.

356. When you wish to distinguish between two or more persons, say, "*Which* is the happy man?"—not *who*—"*Which* of those ladies do you admire?"

357. Instead of "*Who* do you think him to be?"—say, "*whom* do you think him to be?"

358. *Whom* should I see?

359. To *whom* do you speak?

360. *Who* said so?

361. *Who* gave it to you?

362. *Of whom* did you procure them?

363. *Who* was *he?*

364. *Who* do men say that *I* am?

365. *Whom* do they represent *me* to be?

366. In many instances in which *who* is used as an interrogative, it does not become *whom;* as, "*Who* do you speak to?" "*Who* do you expect?" "*Who* is she married to?" "*Who* is this reserved for?" "*Who* was it made by?" Such sentences are found in the writings of our best authors, and it would be presumptuous to consider them as ungrammatical. If the word *whom* should be preferred, then it would be best to say, "For *whom* is this reserved?" etc.

367. Instead of "After *which* hour," say, "After *that* hour."

368. *Self* should never be added to *his, their, mine* or *thine.*

369. *Each* is used to denote every individual of a number.

370. *Every* denotes all the individuals of a number.

371. *Either* and *or* denote an alternative: "I will take *either* road, as you please;" "I will take this *or* that."

372. *Neither* means *not either;* and *nor* means *not other.*

373. *Either* is sometimes used for *each.* "Two thieves were crucified, on *either* side one."

374. "Let *each* esteem others as good as themselves," should be, "Let *each* esteem others as good as *himself.*"

375. "There are bodies *each* of which *are* so small," should be, "each of which *is* so small."

376. Do not use double superlatives, such as *most straightest, most highest, most finest.*

377. The term *worser* has gone out of use; but *lesser* is still retained.

378. The use of such words as *chiefest, extremest,* etc., has become obsolete, because they do not give any superior force to the meanings of the primary words, *chief, extreme,* etc.

379. Such expressions as *more impossible, more indispensable, more universal, more uncontrollable, more unlimited,* etc., are objectionable, as they really enfeeble the meaning which it is the object of the speaker or writer to strengthen. For instance, *impossible* gains no strength by rendering it *more* impossible. This class of error is common with persons who say, "A *great large* house," "A *great big* animal," "A *little small* foot," "A *tiny little* hand."

380. *Here, there,* and *where,* originally denoting place, may now, by common consent, be used to denote other meanings; such as, "*There* I agree with you," "*Where* we differ," "We find pain *where* we expected pleasure," "*Here* you mistake me."

381. *Hence, whence,* and *thence,* denoting departure, etc., may be used without the word *from.* The idea of *from* is included in the word *whence*—therefore it is unnecessary to say "*From whence.*"

382. *Hither, thither,* and *whither,* denoting to a place, have generally been superseded by *here, there,* and *where.* But there is no good reason why they should not be employed. If, however, they are used, it is unnecessary to add the word *to,* because that is implied—"*Whither* are you going?" "*Where* are you going?" Each of these sentences is complete. To say, "Where are you going *to?*" is redundant.

383. Two *negatives* destroy each other, and produce an affirmative. "*Nor* did he *not* observe them," conveys the idea that he *did* observe them.

384. But negative assertions are allowable. "His manners are not unpolite," which implies that his manners are, in some degree, marked by politeness.

385. Instead of "I *had* rather walk," say "I would rather walk."

386. Instead of "I doubt not *but* I shall be able to go," say "I doubt not that I shall be able to go."

387. Instead of "Let you and *I*," say "Let you and me."

388. Instead of "I am not so tall as *him*," say "I am not so tall as he."

389. When asked "Who is there?" do not answer "*Me*," but "I."

390. Instead of "For you and *I*," say "For you and me."

391. Instead of "*Says I*," say "I said."

392. Instead of "You are taller than *me*," say "You are taller than I."

393. Instead of "I *ain't*," or, "I *arn't*," say "I am not."

394. Instead of "Whether I be present or *no*," say "Whether I be present or not."

395. For "Not that I knows *on*," say "Not that I know."

396. Instead of "*Was* I to do so," say "Were I to do so."

397. Instead of "I would do the same if I *was him*," say "I would do the same if I were he."

398. Instead of "I *had as lief* go myself," say "I would as soon go myself," or "I would rather."

399. It is better to say "Bred and born," than "Born and bred."

400. It is better to say "Six weeks ago," than "Six weeks back."

401. It is better to say "Since which time," than "Since when."

402. It is better to say "I repeated it," than "I said so over again."

403. It is better to say "A physician" or "A surgeon" than "A medical man."

404. Instead of "He was too young to *have* suffered much," say "He was too young to suffer much."

405. Instead of "*Less* friends," say "Fewer friends." Less refers to quantity.

406. Instead of "A *quantity* of people," say "A number of people."

407. Instead of "*He and they* we know," say "Him and them."

408. Instead of "*As* far as I can see," say "So far as I can see."

409. Instead of "If I am not *mistaken*," say "If I mistake not."

410. Instead of "You *are mistaken*," say "You mistake."

411. Instead of "What *beautiful* tea," say "What good tea."

412. Instead of "What a nice prospect," say "What a *beautiful* prospect."

413. Instead of "A *new pair* of gloves," say "A pair of new gloves."

414. Instead of saying "*He* belongs to the *house*," say "The house belongs to him."

415. Instead of saying "*Not no* such thing," say "Not any such thing."

416. Instead of "I hope you'll think nothing *on* it," say "I hope you'll think nothing of it."

417. Instead of "Restore it *back* to me," say "Restore it to me."

418. Instead of "I suspect the *veracity* of his story," say "I doubt the truth of his story."

419. Instead of "I seldom *or ever* see him," say "I seldom see him."

420. Instead of "*Rather warmish*," or "A *little* warmish," say "Rather warm."

421. Instead of "I expected *to have* found him," say "I expected to find him."

422. Instead of "*Shay*," say "Chaise."

423. Instead of "He is a very *rising* person," say "He is rising rapidly."

424. Instead of "Who *learns* you music?" say "Who teaches you music?"

425. Instead of "I *never sing whenever* I can help it," say "I never sing when I can help it."

426. Instead of "Before I do that I must *first* ask leave," say "Before I do that I must ask leave."

427. Instead of "To *get over* the difficulty," say "To overcome the difficulty."

428. The phrase "*get over*," is in many cases misapplied, as, to "get over a person," to "get over a week," to "get over an opposition."

429. Instead of saying "The *observation* of the rule," say "The observance of the rule."

430. Instead of "A man *of* eighty years of age," say "A man eighty years old."

431. Instead of "Here *lays* his honored head," say "Here lies his honored head."

432. Instead of "He died from *negligence*," say "He died through neglect," or, "In consequence of neglect."

433. Instead of "Apples are plenty," say "Apples are plentiful."

434. Instead of "The *latter end* of the year," say "The end, or, the close of the year."

435. Instead of "The *then* government," say "The government of that age, or century, or year, or time."

436. Instead of "For *ought* I know," say "For aught I know."

437. Instead of "A *couple* of chairs," say "Two chairs."

438. Instead of "*Two couples*," say "Four persons."

439. But you may say "A married couple," or "A married pair," or, "A couple of fowls," etc., in any case where one of each sex is to be understood.

440. Instead of "They are *united together* in the bonds of matrimony," say "They are united in matrimony," or, "They are married."

441. Instead of "We travel *slow*," say "We travel slowly."

442. Instead of "I *had better* go," say "It were better that I should go."

443. Instead of "He plunged *down* into the river," say "He plunged into the river."

444. Instead of "He jumped *from off* the scaffolding," say "He jumped off from the scaffolding."

445. Instead of "He came the last *of all*," say "He came the last."

446. Instead of "*universal*," with reference to things that have any limit, say "general;" "generally approved," instead of "universally approved;" "generally beloved," instead of "universally beloved."

447. Instead of "They ruined *one another*," say "They ruined each other."

448. Instead of "If *in case* I succeed," say "If I sueeeed."

449. Instead of "A *large enough* room," say "A room large enough."

450. Instead of "This villa, to *let*," say "This villa to be let."

451. Instead of "I am slight in comparison *to* you," say "I am slight in comparison with you."

452. Instead of "I went *for* to see him," say "I went to see him."

453. Instead of "The cake is all *eat up*," say "The cake is all eaten."

454. Instead of "It is bad *at the best*," say "It is very bad."

455. Instead of "Handsome is *as* handsome does," say "Handsome is who handsome does."

456. Instead of "As I *take* it," say "As I see," or "As I understand it."

457. Instead of "The book fell *on* the floor," say "The book fell to the floor."

458. Instead of "His opinions are *approved of* by all," say "His opinions are approved by all."

459. Instead of "I will add *one more* argument," say "I will add one argument more," or, "another argument."

460. Instead of "General R. S. Canby was killed *by* a bullet," say "General R. S. Canby was killed with a bullet."

461. Instead of "A sad curse is war," say "War is a sad curse."

462. Instead of "He stands *six foot* high," say "He measures six feet," or, "His height is six feet."

463. Instead of "I go *every now and then*," say "I go often, or frequently."

464. Instead of "Who finds him in clothes," say "Who provides him with clothes."

465. Say "The first two," and "the last two," instead of "the *two first*," "the *two last*;" leave out all expletives, such as "of all," "first of all," "last of all," "best of all," etc., etc.

466. Instead of his "His health was *drank with enthusiasm*," say "His health was drunk enthusiastically."

467. Instead of "*Except* I am prevented," say "Unless I am prevented."

468. Instead of "In its *primary* sense," say "In its primitive sense."

469. Instead of "It grieves me to see you," say "I am grieved to see you."

470. Instead of "Give me *them* papers," say "Give me those papers."

471. Instead of "*Those* papers I hold in my hand," say "These papers I hold in my hand."

472. Instead of "I could scarcely imagine but *what*," say, "I could scarcely imagine but that."

473. Instead of "He was a man *notorious* for his benevolence," say "He was noted for his benevolence."

474. Instead of "She was a woman *celebrated* for her crimes," say "She was notorious on account of her crimes."

475. Instead of "What may your name be?" say "What is your name?"

476. Instead of "Bills are requested not to be stuck here," say "Bill-stickers are requested not to stick bills here."

477. Instead of "By *smoking it often* becomes habitual." say "By smoking often it becomes habitual."

478. Instead of "I lifted it *up*," say "I lifted it."

479. Instead of "It is *equally of the same* value," say "It is of the same value," or "equal value."

480. Instead of "I knew it *previous* to your telling me," say "I knew it previously to your telling me."

481. Instead of "You *was* out when I called," say "You were out when I called."

482. Instead of "I thought I should *have won* this game," say "I thought I should win this game."

483. Instead of "*This* much is certain," say "Thus much is certain," or "So much is certain."

484. Instead of "He went away *as it may be* yesterday week," say "He went away yesterday week."

485. Instead of "He came *the Saturday, as it may be, before the Monday,*" specify the Monday on which he came.

486. Instead of "Put your watch *in* your pocket," say "Put your watch into your pocket."

487. Instead of "He has *got* riches," say "He has riches."

488. Instead of "Will you *set* down?" say "Will you sit down?"

489. Instead of "The hen is *setting,*" say "The hen is sitting."

490. Instead of "It is raining very *hard,*" say "It is raining very fast."

491. Instead of "No, *thank'ee,*" say "No, thank you."

492. Instead of "I cannot do it without *farther* means," say "I cannot do it without further means."

493. Instead of "No sooner *but,*" or "No other *but,*" say "than."

494. Instead of "*Nobody else* but her," say "Nobody but her."

495. Instead of "He fell *down* from the balloon," say "He fell from the balloon."

496. Instead of "He rose *up* from the ground," say "He rose from the ground."

497. Instead of "*These* kind of oranges *are* not good," say "This kind of oranges is not good."

498. Instead of "Somehow or *another,*" say "Somehow or other."

499. Instead of "*Undeniable* references required," say "Unexceptionable references required."

500. Instead of "I cannot *rise* sufficient funds," say "I cannot raise sufficient funds."

501. Instead of "I cannot *raise* so early in the morning," say "I cannot rise so early in the morning."

502. Instead of "*Well,* I don't know," say "I don't know."

503. Instead of "*Will* I give you some more tea?" say "Shall I give you some more tea?"

504. Instead of "O, dear, what *will* I do?" say "O, dear, what shall I do?"

505. Instead of "I think *indifferent* of it," say "I think indifferently of it."

506. Instead of "I will send it *conformable* to your orders," say "I will send it conformably to your orders."

507. Instead of "Give me a *few* broth," say "Give me some broth."

508. Instead of "*Her* said it was hers," say "She said it was hers."

509. Instead of "To be *given away gratis,*" say "To be given away."

510. Instead of "Will you enter in?" say "Will you enter?"

511. Instead of "*This* three days, or more," say "These three days or more."

512. Instead of "He is a bad *grammarian,*" say "He is not a grammarian."

513. Instead of "We *accuse him for,*" say "We accuse him of."

514. Instead of "We *acquit* him *from,*" say "We acquit him of."

515. Instead of "I am averse *from* that," say "I am averse to that."

516. Instead of "I confide *on* you," say "I confide in you."

517. Instead of "I differ *with* you," say "I differ from you."

518. Instead of "As soon *as ever,*" say "As soon as."

519. Instead of "The *very best,*" or "The *very worst,*" say "The best or the worst."

520. Instead of "A *winter's morning,*" say "A winter morning," or, "A wintry morning."

521. Instead of "Fine morning *this* morning," say "This is a fine morning."

522. Instead of "How *do* you *do?*" say "How are you?"

523. Instead of "Not so well as I could wish," say "Not quite well."

524. Avoid such phrases as "No great shakes," "Nothing to boast of," "Down in my boots," "Suffering from the blues." All such sentences indicate vulgarity.

525. Instead of "No one *cannot* prevail upon him," say "No one can prevail upon him."

526. Instead of "No one *hasn't* called," say "No one has called."

527. Avoid such phrases as "If I was you," or even, "If I were you." Better say "I advise you how to act."

528. Instead of "You have a *right* to pay me," say "It is right that you should pay me."

529. Instead of "I am going *on* a tour," say "I am about to make a tour," or "going."

530. Instead of "I am going *over* the bridge," say "I am going *across* the bridge."

531. Instead of "He is coming here," say "He is coming hither."

532. Instead of "He lives opposite the square," say "He lives opposite to the square."

533. Instead of "He *belongs* to the Mercantile Library," say "He is a member of the Mercantile Library."

534. Avoid such phrases as "I am up to you," "I'll be down upon you," "Cut," or "Mizzle."

535. Instead of "I *should just* think I could," say "I think I can."

536. Instead of "There has been a *good deal*," say "There has been much."

537. Instead of "*Following up* a principle," say "Guided by a principle."

538. Instead of "Your *obedient, humble servant*," say "Your obedient," or, "Your humble servant."

539. Instead of saying "The effort you are making *for* meeting the bill," say "The effort you are making to meet the bill."

540. Instead of saying "It shall be submitted to investigation *and inquiry*," say "It shall be submitted to investigation," or "to inquiry."

541. Dispense with the phrase "*Conceal from themselves the fact.*" It suggests a gross anomaly.

542. Never say "*Pure and unadulterated*," because the phrase embodies a repetition.

543. Instead of saying "Adequate *for*," say "Adequate to."

544. Instead of saying, "A *surplus over and above*," say "A surplus."

545. Instead of saying "A *lasting and permanent* peace," say "A permanent peace."

546. Instead of saying "I left you *behind at* Chicago," say "I left you behind me at Chicago."

547. Instead of saying "*Has been* followed by immediate dismissal," say "Was followed by immediate dismissal."

548. Instead of saying "Charlotte was met *with* Thomas," say "Charlotte was met by Thomas." But if Charlotte and Thomas were walking together, "Charlotte and Thomas were met by," etc.

549. Instead of "It is strange that no author should *never* have written," say "It is strange that no author should ever have written."

550. Instead of "I won't never write," say "I will never write."

551. To say "Do *not* give him *no more* of your money," is equivalent to saying "Give him some of your money." Say "Do not give him *any* of your money."

552. Instead of saying "They are not what nature *designed* them," say "They are not what nature designed them to be."

553. Instead of saying "A beautiful *seat and gardens*," say "A beautiful seat and its gardens."

554. Instead of "By this *means*," say "By these means."

555. Instead of "All that was *wanting*," say "All that was wanted."

556. Instead of saying "I had not the pleasure of hearing his sentiments when I wrote that letter," say "I had not the pleasure of having heard," etc.

557. Instead of "The quality of the

apples *were* good," say "The quality of the apples was good."

558. Instead of "The want of learning, courage, and energy *are* more visible," say "is more visible."

559. Instead of "We are conversant *about* it," say "We are conversant with it."

560. Instead of "We called *at* William," say "We called on William."

561. Instead of "We die *for* want," say "We die of want."

562. Instead of "He died *by* fever," say "He died of fever."

563. Instead of "I *enjoy* bad health," say "My health is not good."

564. Instead of "*Either* of the three," say "Any one of the three."

565. Instead of "Better *nor* that," say "Better than that."

566. Instead of "We often think *on* you," say "We often think of you."

567. Instead of "Though he came, I did not *seen* him," say "Though he came, yet I did not see him."

568. Instead of "Mine is *so* good as yours," say "Mine is as good as yours."

569. Instead of "He was remarkable handsome," say "He was remarkably handsome."

570. Instead of "Smoke ascends *up* the chimney," say "Smoke ascends the chimney."

571. Instead of "You will *some* day be convinced," say "You will one day be convinced."

572. Instead of saying "Because I don't choose to," say "Because I would rather not."

573. Instead of "*Because* why?" say "Why?"

574. Instead of "That *there* boy," say "That boy."

575. Instead of "Direct your letter to me," say "Address your letter to me."

576. Instead of "The horse is not *much worth*," say "The horse is not worth much."

577. Instead of "The *subject-matter* of debate," say "The subject of debate."

578. Instead of saying "When he *was* come back," say "When he had come back."

579. Instead of saying "His health has been *shook*," say "His health has been shaken."

580. Instead of "It was *spoke* in my presence," say "It was spoken in my presence."

581. Instead of "*Very* right," or "*Very* wrong," say "Right," or "Wrong."

582. Instead of "The *mortgager* paid him the money," say "The mortgagee paid him the money." The mortgagee lends; the mortgager borrows.

583. Instead of "This town is not *as* large as we thought," say "This town is not so large as we thought."

584. Instead of "I *took you to be* another person," say "I mistook you for another person."

585. Instead of "On *either* side of the river," say "On each side of the river."

586. Instead of "*There's* fifty," say "There are fifty."

587. Instead of "The *best* of the two," say "The better of the two."

588. Instead of "My clothes have *become too small* for me," say "I have grown too stout for my clothes."

589. Instead of "Is Mr. Smith *in?*" say "Is Mr. Smith within?"

590. Instead of "Two *spoonsful* of physic," say "Two spoonfuls of physic."

591. Instead of "He *need* not do it," say "He needs not do it."

592. Instead of "She said, says she," say "She said."

593. Avoid such phrases as "I said, says I," "Thinks I to myself, thinks I," etc.

594. Instead of "I don't think so," say "I think not."

595. Instead of "He was in *eminent* danger," say "He was in *imminent* danger."

596. Instead of "The weather is *hot*," say "The weather is very warm."

597. Instead of "I *sweat*," say "I perspire."

598. Instead of "I *only* want two shillings," say "I want only two shillings."

599. Instead of "*Whatsomever*," say "Whatever," or "Whatsoever."

600. Avoid such exclamations as "God bless me!" "God deliver me!" "By God!" "Upon my soul!" etc.

601. "THOU SHALT NOT TAKE THE NAME OF THE LORD THY GOD IN VAIN."

602. Accent.—Accent is a particular stress or force of the voice upon certain syllables or words. This mark ′ in printing denotes the syllable upon which the stress or force of the voice should be placed.

603. A WORD MAY HAVE MORE THAN ONE ACCENT. Take as an instance aspiration. In uttering this word we give a marked emphasis of the voice upon the first and third syllables, and therefore those syllables are said to be accented. The first of these accents is less distinguishable than the second, upon which we dwell longer, therefore the second accent is called the primary, or chief accent of the word.

604. WHEN THE FULL ACCENT FALLS ON A VOWEL, that vowel should have a long sound, as in *vo′cal;* but when it falls on a consonant, the preceding vowel has a short sound, as in *hab′it.*

605. SIMPLE WORDS of two syllables have only one syllable accented, except the word *amen*, which Walker says, "Is the only word in the language which has necessarily two consecutive accents." There are, however, many compound words of two syllables, which have both syllables more or less accented.

606. IT SHOULD BE REMEMBERED that there are many words which have a double meaning or application, and that the difference of meaning is indicaten by the difference of accent. We have about eighty or ninety cases among our dissyllables, in which the same word is used as a *noun* on the one hand, and a *verb* on the other. To distinguish between them, we accent the nouns on the *first* syllable, and the verbs on the *last.*

607. NOUN SIGNIFIES NAME; *nouns* are the names of persons and things; of things material and palpable, as well as those of which we have only a conception and knowledge, such as *courage, firmness, goodness, strength;* and *verbs* express *actions, movements,* etc. If the word used signifies that anything has been done, or is being done, or is, or is to be done,—then that word is a *verb.*

608. THUS WHEN WE SAY that anything is an "in′sult," that word is a *noun,* and is accented on the first syllable; but when we say "he did it to insult′ another person," the word insult implies *acting,* and becomes a verb, and should be accented on the last syllable.

609. THE FOLLOWING WORDS are among those liable to this variation. Ab′sent, absent′; ab′stract, abstract′; ac′cent, accent′; aug′ment, augment′; col′lect, collect′; com′pound, compound′; con′duct, conduct′; con′flict, conflict′; con′sort, consort′; con′tract, contract′; con′vert, convert′; con′verse, converse′; des′ert, desert′; di′gest, digest′; es′cort, escort′; ex′tract, extract′; fre′quent, frequent′; im′port, import′; im′press, impress′; in′cense, incense′; in′sult, insult′; ob′ject, object′; per′fume, perfume′; per′mit, permit′; pro′duce, produce′; proj′ect, project′; rec′ord, record′; ref′use, refuse′; sub′ject, subject′; trans′fer, transfer′.

610. Rules of Pronunciation.

i. B, preceded by *m* in the same syllable, and also before *t* is generally silent; as in lamb, *lam;* dumb, *dum;* debt, *det;* doubt, *dout.*

ii. C, before *a, o,* and *u,* and in some other situations, is a close articulation like *k.* Before *e, i,* and *y, c* is precisely equivalent to *s* in same; thus, *cell, cider, cypress.*

iii. Ch has the sound of *tsh,* or *tch*

as in chair, chin, choose. In words derived from the ancient languages *ch* has the sound of *k*, as in chasm, chalybeate, anchor, epoch, character, mechanic, chimera; pronounced *kasm, kalybeate, ankor, epok, karachter, mekanic, kimera.* In a few words *ch* is sounded like *sh*, as in *machine;* but in all words in which *ch* is followed by *l* or *r* it has the sound of *k*, as in *Christian.*

iv. When the word *arch* is prefixed to English words, it is pronounced *artch*, as in *archbishop, arch-fiend;* but when it begins a word from the Greek language, and is followed by a vowel, it is pronounced *ark*, as archetype, *arketype;* archipelago, *arkipelago*, etc.

v. E final indicates that the preceding vowel is long, as in *hate, mete, sire, robe, lyre, abate, recede, invite, rémote, intrude.*

vi. E final indicates that *c* preceding has the sound of *s*, as in *lace, lance;* and that *g* preceding has the sound of *j*, as in *charge, page, challenge.*

vii. E final in proper English words never forms a syllable, and in the most used words in the terminating unaccented syllable, it is silent; thus, *nature, genuine, examine, granite* are pronounced *natur, genuin, examin, granit.*

viii. E final in some words of foreign origin, forms a syllable: *syncope, simile.*

ix. E final is silent after *l* in the following terminations, *ble, cle, dle, fle, gle, kle, ple, tle, zle*, as in *able, manacle, cradle, raffle, mangle, wrinkle, supple, rattle, puzzle,* which are pronounced *ab'l, man'acl, cra'dl, raf'fl, man'gl, wrin'kl, sup'pl, puz'zl.*

x. E is usually silent in the termination *en*, as in *token, broken*, pronounced *to'kn, bro'kn.*

xi. Ous in the termination of adjectives and their derivatives is pronounced *us*, as in *gracious, pious, pompous.*

xii. Ce, ci, ti, before a vowel, has the sound of *sh*, as in *cetaceous, gracious, motion, partial, ingratiate*, pronounced *cetashus, grashus, moshon, parshal, ingrashiate.*

xiii. Ti, after a consonant, has the sound of *ch*, as in *bastion*, pronounced *baschon.*

xiv. Si, after an accented vowel, is pronounced like *zh*, as in *Ephesian, confusion*, pronounced *Ephezhan, confuzhon.*

xv. Gh, when at the beginning of a word, the *h* is silent, as in *ghost, ghastly*, etc. In the middle and at the end of words both letters are commonly silent, as in high, nigh, caught, bought; pronounced *hi, ni, caut, baut.* In the following exceptions, however, gh is pronounced as *f: cough, chough, clough, enough, laugh, rough, tough, trough.*

xvi. Wh is sounded as it would naturally be if the order of the letters were reversed; thus, what, whiff, whale, pronounced *hwat, hwiff, hwale;* in the following words *w* is silent: *who, whom, whose, whoop, whole.*

xvii. Ght when at the end of words, as fight, height, etc., the letters *gh* are always silent.

xviii. H after *r* has no sound, as in *rheum, rhyme*, pronounced *reum, ryme.* H should be sounded in the middle of words, as in fore*h*ead, ab*h*or, be*h*old, ex*h*aust, in*h*abit, un*h*orse.

xix. H should always be sounded except in the following words: heir, herb, honest, honor, hour, humor, humble, and all their derivatives, as honestly, honorable, etc.

xx. K and *g* are silent before *n*, as *know, gnaw*, pronounced *no, naw.*

xxi. W before *r* is silent, as in *wrong, wreath*, pronounced *rong, reath.*

xxii. L before *k* is silent, as in *baulk, talk, walk*, pronounced *bauk, tauk, wauk.*

xxiii. Ph has the sound of *f*, as in *philosophy*, pronounced *filosofy.*

xxiv. Ng has two sounds, the one as in singer, the other as in finger.

xxv. N after *m*, and closing a syllable, is silent, as in *hymn, condemn.*

xxvi. P before *s* and *t* is mute, as in *psalm, pseudo, ptarmigan*, pronounced *sahm, sudo, tarmigan.*

xxvii. R has two sounds, one strong

and vibrating, as at the beginning of words and syllables, such as *rock, reckon, raw;* the other at the termination of words, or when it is succeeded by a consonant, as *farmer, morn.* Before the letter *r* there is a slight sound of *e* between the vowel and the consonant; thus, *bare, parent, mere, mire, more, pure,* are pronounced nearly *baer, paerent, meer, mier, moer, puer.*

xxviii. X at the beginning of words has the sound of *z*, as in Xenophon, pronounced *Zenophon.*

xxix. Z has generally the sound of soft *s*, as in maze; but, in a few words it takes that of *zh*, as in azure.

xxx. Other principles of pronunciation will be exemplified in the following list of words.

611. Words with their Pronunciations.

Ability, a-*bil*-e-te.
Abdomen, ab-*do*-men.
Absolve, ab-*zolv.*
Again, a-*gen.*
Ancient, *an*-shent.
Anxiety, ang-*zi*-e-te.
Antique, an-*teek.*
Apostle, without the *t.*
Architect, *ar*-ke-tekt (see rule).
Asparagus, not asparagrass.
Association, as-so-she-*a*-shun.
Auxiliary, awg-*zil*-ya-re.
Awkward, *awk'*-wurd.
Bade, bad.
Bastile, *bas*-teel.
Been, bin.
Beloved, as a verb be-*luvd*; as an adjective be-*luv*-ed.
Biog'raphy, not *be*-ography.
Bitumen, be-*tue*-men, not bi-*too*-men.
Bombast, *bum*-bast.
Bronchitis, bron-*ki*-tis.
Bouquet, boo-*ka.*
Buoy, bwoy, not boy.
Catch, as spelled, not ketch.
Charlatan, shar'la-tan.
Chasm, kasm.
Chasten, cha'sn.
Chemistry, *kim*-is-tre.
Choir, kwire.
Combat, *kum*-bat.
Ciliary, *sil*-ya-re.
Cleanly, *klen*-le.
Corps, core; plural, cores.
Conduit, *kun*-dit.
Courtesy (politeness), *kur*-te-se.
Courtesy (a lowering of the body), *kurt*-se.
Courteous, *kurt*-yus.
Conciliate, kon-*sil*-yate.
Convivial, kon-*viv*-yal.
Daughter, *daw*-ter, not dot-er.
Design, and desist, have the sound of *s.*
Desire, should have the sound of *z.*
Devastate, *dev*-as-tate.
Dew, due, not doo.
Dishonorable, diz-*on*-ur-a-bl.
Diamond, as spelled, not *di*-mond.
Docile, *dos*-il.
Dynasty, *dyn*-as-te.
E'en and e'er, een and air.
Emollient, e-*mol*-yent.
Engine, *en*-jin, not in-gine.
Epistle, without the *t.*
Epitome, e-*pit*-o-me.
Epoch, ep-oek, not *e*-poek.
Equipage, *ek*-we-pij.
Equable, *e*-qua-bl, not *ek*-wa-bl.
Every ev-er-e, not ev-re.
Extraordinary, ex-*tror*-de-nary.
Exhaust, egz-*hawst.*
Fatigue, fa-*teeg.*
Flaccid, *flak*-sid.
Finance, *fe*-nance.
Garden, *gar*-dn, not gaw-dn, nor garding.
Geography, as spelled, not jog-ra-fe.
Hasten, *ha*-sn.
Height, hite.
Heinous, *hay*-nus.
Heroine, *her*-o-in, not he-ro-ine.
Horizon, ho-*ri*-zn, not *hor*-i-zun.
Housewife, *huz*-wif.
Hymeneal, hy-men-*e*-al.
Instead, in-*sted*, not in-stid.
Invalid, *in*-va-leed.
Isolate, *iz*-o-late, not *i*-so-late.
Leisure, *le*-zhur.
Languor, *lang*-gwur.
Luxurious, lug-*zu*-re-us.
Massacre, *mas*-sa-ker.
Mayor, *ma*-ur, not mare.
Matron, *ma*-trun.
Menagerie, men-*azh*-er-e.
Mischievous, *mis*-chiv-us.
Naughty, *naw*-te, not not-e.
Ne'er (never), nare.
Nephew, *nev*-u, not nef-u.
New, *nue*, not noo.
Notable (worthy of notice), *no*-ta-bl.
Notable (industrious), *not*-a-bl.
Oblique, ob-*leek*, not o-blike.

Of, ov, exeept when compounded with there, here, and where, which should be pronouneed there-*of*, where-*of*, etc.
Ostrich, as spelled, not ost-ridg.
Orchestra, *or*-kes-tra.
Pageant, *padj*-ant.
Pineers, *pin*-cerz, not pinch-ers.
Plaintiff, as spelled.
Prairie, *pra*-re.
Precedent (an example), *press*-e-dent; pre-*ce*-dent is the pronuneiation of the adjective.
Prescription, pre-*scrip*-tion, not per, nor pres-serip-tion.
Prologue, prol-og.
Perspiration, per-spi-*ra*-tion, not *pres*-ration.
Prevent'ive, not pre-ven-ta-tive.
Profile, *pro*-feel.
Provost, pro-*vo*.
Quadrille, ka-*drill*.
Quay, key, not as spelled.
Radish, as spelled, not red-ish.
Raillery, *ral*-ler-e.
Respite, *res*-pit.
Reside, and resort, have the sound of z.
Recess, re-*ses*.
Rhu'barb, as spelled, not ru-burb.
Sausage, *saw*-sage, not sas-idge.
Seamstress, *sem*-stress.
Seniority, seen-*yor*-e-te.
Soot, as spelled, not sut.
Specious, *spe*-shus.
Slaughter, *slaw*-ter.
Slough (that which is east off), sluf.
Slough (a miry place), slou.
Suffice, suf-*fize*.
Supple, as spelled, not sou-pel.
Terrace, not *tur*-ace.
Therefore, *ther*-fore.
Transient, *tran*-shent.
Tremen'dous, not tre-meng-us.
Umbrella, um-*brel*-la, not um-ber-el-la.
Vignette, vin-*yet*.
Were, wer, not *ware*.
Yaeht, yot.
Yeast, as spelled, not east.
Zenith, *zen*-ith.

612 Punctuation. In oral communications, the relation of words and clauses is indicated by the pauses and inflections of the voice; but as written composition has no such aids, it is the province of punctuation to supply the deficiency. Punctuation, therefore, is the art of placing *points* in written or printed matter so as to indicate the pauses which the writer would make, if he were communicating his thoughts orally. The ancients wrote their manuscripts without points or divisions of any kind. For the leading principles of the present system of punctuation, we are indebted to a printer named Manutius, who flourished in Venice at the commencement of the sixteenth century.

613. The Following Paragraph shows how difficult it is to read without the aid of the points used as pauses:—

The highest and purest motives which actuate or animate the human breast are those which spring from a sense of duty it has been truly said that there is no joy so great as that of a consciousness of having done our duty there is no evil that we cannot either face or fly from but a consciousness of duty disregarded a sense of duty pursues us ever for our happiness or our misery we cannot escape its power or fly from its presence and in that scene of inconceivable solemnity which lies yet farther onward we shall still find ourselves surrounded by the consciousness of duty to pain us wherever it has been violated and to console us if it has been performed.

614. The Same Paragraph, properly punctuated, and with Capital letters placed after full-points, according to the adopted rule, may be easily read and understood:—

The highest and purest motives which actuate or animate the human breast, are those which spring from a sense of duty. It has been truly said, that "There is no joy so great as that of a consciousness of having done our duty. There is no evil that we cannot either face or fly from, but a consciousness of duty disregarded. A sense of duty pursues us ever, for our happiness or our misery. We cannot escape its power or fly from its presence; and in that scene of inconceivable solemnity, which lies yet farther onward, we shall still find ourselves surrounded by the consciousness of duty—

to pain us wherever it has been violated, and to console us if it has been performed."

615. A CHANGE OF PUNCTUATION generally produces a change of meaning. Thus: "I said the man was dishonest, it is true; and I am sorry for it." Here the writer expresses sorrow for what he has said. But when punctuated as follows: "I said the man was dishonest; it is true, and I am sorry for it"—he asserts that the man is dishonest, and regrets that it is so. The following examples show how the sense of a sentence may be altered, by simply changing the position of the comma: John Smith the grocer, says he has some nice vegetables. John, Smith the grocer says he has some nice vegetables. John Smith, the grocer says he has some nice vegetables. It was formerly taught that *points* were used merely as aids to reading, and that when the reader came to a comma, he should stop till he could count *one*, when to a semicolon *two*, to a colon *three*, and to a period *four*. But, as the principal object of punctuation is to bring out a writer's meaning, it is evident these rules must be liable to many exceptions. Then, too, the duration of the pauses should be regulated by the degree of rapidity with which the matter is being read.

616. THE POINTS ARE AS FOLLOWS:—

The Comma .....,
The Semicolon....;
The Colon....:
The Period,or Full Point.... .
The Apostrophe....'
The Hyphen or Conjoiner....-
The Note of Interrogation....?
The Note of Exclamation....!
The Parenthesis....()
The Asterisk, or Star....*

As these are all the points required in simple epistolary composition, we will confine our explanations to the rules which should govern the use of them.

617. THE COMMA marks the slightest degree of separation between the elements of a sentence. It is used to throw together such similar parts of speech as are joined in pairs by the conjunction *and*. To separate the several members of a series, that is, a succession of similar words or members. To separate from the rest of the sentence such clauses as are added by way of explanation or illustration, or such as are really parenthetical, though they may not be so marked. To separate from the rest of the sentence words in the vocative case. In many cases to separate the relative and the antecedent. To separate from the rest of the sentence such clauses as are introduced by a connective, conditional, or exceptive particle, or by an adverb of time or place; and to separate antithetical clauses, and such comparate clauses, as are introduced by the adjectives *like, better;* by the conjunctions *as, so, than;* by the adverbs *how, much, more, oftener, rather*, unless the comparative member at the end be short.

618. THE SEMICOLON is used when a longer pause is required than at a comma, but when the sense is imperfect, and needs some other member to render it complete. Or it is used for dividing compound sentences into two or more parts which are not so closely connected as those which are separated by commas only, nor yet so independent and perfect as those which admit a colon. A semicolon should also be placed before *as*, and *namely*, when they precede a specification of particulars; as, "There are three genders; namely, the masculine, feminine, and neuter."

619. THE COLON may be inserted when a member of a sentence is complete in itself, but is followed by some additional remark or illustration of the subject. When several semicolons have preceded, and when a longer pause is necessary in order to mark the connecting or concluding sentiment. A colon should be placed before a direct quotation, an example, a speech, or a narrative, when introduced by the words *thus, following, as follows.*

620. THE PERIOD should be placed after every imperative and declarative sentence. A period should also be placed after every abbreviated word; as, "The letter was written Mar. 6th, and addressed to Thos. B. Bones, M. D."

621. THE APOSTROPHE is used to indicate the combining of two words in one—as John's book, instead of John, his book; or to show the omission of parts of words, as Glo'ster, for Gloucester—tho' for though. These abbreviations should be avoided as much as possible. Cobbett says the apostrophe "ought to be called the mark of *laziness* and vulgarity." The first use however, of whichwe gave an example, is a neeessary and proper one.

622. THE HYPHEN, or eonjoiner, is used to unite words which, though they are separate and distinet, have so close a connection as almost to become one word, as water-rat wind-mill, etc. It is also used in writing and printing, at the end of a line, to show where a word is divided and continued in the next line. Look down the ends of the lines in this column, and you will notice the hyphen in several places.

623. THE NOTE OF INTERROGATION indicates that the sentenee to which it is put asks a question, as "What is the meaning of that assertion? What am I to do?"

624. THE NOTE OF EXCLAMATION, or of admiration, indieates surprise, pleasure, or sorrow, as, "Oh! Ah! Goodness! Beautiful! I am astonished! Woe is me!"

625. THE PARENTHESIS is used to prevent confusion by the introduction to a sentence of a passage not necessary to the sense thereof. "I am going to meet Mr. Smith (though I am no admirer of him) on Wednesday next." It is better, however, as a rule, not to employ parenthetical sentenees.

626. THE ASTERISK, OR STAR, may be employed to refer from the text to a note of explanation at the foot of a eolumn, or at the end of a letter. *** Three stars are sometimes used to call particular attention to a paragraph.

627. Rules for the Use of Capital Letters. The rules which govern the use of capital letters are as follows:—1. Begin with a capital the first word of every book, ehapter, letter, note, or any other pieee of writing. 2. The first word after a period, and, if the two sentences are totally independent, after a note of interrogation or exclamation. 3. The appellations of the Deity; as, God, Jehovah, Almighty, Supreme Being, Lord, Providence, Messiah, Holy Spirit. 4. Proper names of persons, places, streets, mountains, rivers, ships, month, days; as, George Washington, New York, Broadway, the Alps, the Mississippi, the Leviathan, May, Wednesday. 5. Adjectives derived from the proper names of places; as Grecian, Roman, English, French, Italian. 6. The first word of a quotation introdueed after a eolon, or when it is in a direct form; as, "Always remember this ancient maxim: 'Know thyself.'" The first word of an example may also very properly begin with a capital. 7. Every substantative and principal word in the titles of books; as Philp's History of Progress; The Progressive Reader. 8. The first word in every line of poetry should begin with a capital. 9. The pronoun I and the interjection O are always written in eapitals. Other words, besides the preeeding, may be distinguished by capitals, when they are remarkably emphatie, or the prineipal subjeet of the composition.

628. Italics.—Italies are so called from having been first used by Italian printers. They are employed for the purpose of emphasis or distinction; for the names of ships, books, newspapers, ete.; and for words and quotations from foreign languages. Italicised words in the Bible are not used for the purpose of emphasis, but were supplied by the translators to explain the meaning of the original.

629. Marks Used by Printers.—Besides the marks already described, others are occasionally employed. They are the paragraph ¶; the section §; the dagger †; the double dagger ‡; the dash —; the parallel ‖; the bracket [ ]; and some others. These, however, are quite unnecessary, except for elaborate works, in which they are chiefly used for notes or marginal references.

630. Putting Matter in Type.—Putting matter in type is technically called *composing*. The amount of matter composed, is estimated in *ems*; an *m* (the unit of measurement) being a square of the size of the type employed. The smaller the type the greater the number of ems in a given space. Thus, a square inch set in Nonpareil would contain 144 ems, while the same space in Small Pica, would contain but 49. The following are specimens of the different sizes of type used for printing books:—

NONPAREIL.

It is at home that every man must be known, by those who would make a just estimate of his virtues or felicity; for smiles and embroidery are alike occasional, and the mind is often dressed for show in painted honor and fictitious benevolence.

MINION.

It is at home that every man must be known, by those who would make a just estimate of his virtues or felicity; for smiles and embroidery are alike occasional, and the mind is often dressed for show in painted honor and fictitious benevolence.

BREVIER.

It is at home that every man must be known, by those who would make a just estimate of his virtues or felicity; for smiles and embroidery are alike occasional, and the mind is often dressed for show in painted honor and fictitious benevolence.

BOURGEOIS.

It is at home that every man must be known, by those who would make a just estimate of his virtues or felicity; for smiles and embroidery are alike occasional, and the mind is often dressed for show in painted honor and fictitious benevolence.

LONG PRIMER

It is at home that every man must be known, by those who would make a just estimate of his virtues or felicity; for smiles and embroidery are alike occasional, and the mind is often dressed for show in painted honor and fictitious benevolence.

SMALL PICA.

It is at home that every man must be known, by those who would make a just estimate of his virtues or felicity; for smiles and embroidery are alike occasional, and the mind is often dressed for show in painted honor and fictitious benevolence.

PICA.

It is at home that every man must be known, by those who would make a just estimate of his virtues or felicity; for smiles and embroidery are alike occasional, and the mind is often dressed for show in painted honor and fictitious benevolence.

631. Leading.—By leads are meant thin strips of metal, which are put between the lines of type when it is desired to spread the matter. Leading is said to be "fat" for the com-

positor, as he eharges the same as when set solid. This book is set solid, but the following paragraph shows the same type leaded.

To Guttenberg, Faust, and Schœffer, belong the honor of being the inventors of the art of printing. The respective share of each, however, is uncertain. It is commonly supposed that Faust only supplied Guttenberg with the means of carrying out his experiments; that the latter originated the idea of produeing copies by means of carved blocks; and that to Schœffer, who married Faust's daughter, is due the credit of originating *punches* and *matrices*—the means by which this wonderful invention has been carried to such a state of perfection. The mystery in which the first printers shrouded their art in order to secure the profits of their discovery; the surprise and awe created by a process which apparently multiplied handwriting with a rapidity bordering on the supernatural; and the tendency of the human mind to exaggerate into the marvellous whatever exceeds its comprehension, occasioned them to be regarded as in league with Satan.

632. Hints upon Spelling.—The following rules will be found of great assistance in writing, because they relate to a class of words about the spelling of which doubt and hesitation are frequently felt:—

i. All words of one syllable ending in *l*, with a single vowel before it, have double *l* at the close: as, *mill, sell.*

ii. All words of one syllable ending in *l*, with a double vowel before it, have one *l* only at the close: as, *mail sail.*

iii. Words of one syllable ending in *ll* when compounded, retain but one *l* each: as *fulfil, skilful.*

iv. Words of more than one syllable ending in *l* have one *l* only at the close: as, *delightful, faithful;* except *befall, downfall, recall, unwell,* etc.

v. All derivatives from words ending in *l* have one *l* only: as, *equality* from *equal; fulness,* from *full;* except they end in *er* or *ly*: as, *mill, miller; full, fully.*

vi. All participles in *ing* from verbs ending in *e,* lose the *e* final: as, *have, having; amuse, amusing;* unless they come from verbs ending in double *e,* and then they retain both: as, *see, seeing; agree, agreeing.*

vii. All adverbs in *ly* and nouns in *ment* retain the *e* final of the primitives: as, *brave, bravely; refine, refinement;* except *acknowledgment, judgment,* etc.

viii. All derivatives from words ending in *er* retain the *e* before the *r:* as, *refer, reference;* except *hindrance,* from *hinder, remembrance* from *remember; disastrous* from *disaster; monstrous* from *monster; wondrous* from *wonder; cumbrous* from *cumber,* etc.

ix. Compound words, if both end not in *l,* retain their primitive parts entire: as, *millstone, changeable, raceless;* except *always, also, deplorable, although, almost, admirable,* etc.

x. All one-syllable words ending in a consonant, with a single vowel before it, double that consonant in derivatives: as, *sin, sinner; ship, shipping; big, bigger; glad, gladder,* etc.

xi. One-syllable words ending in a consonant, with a double vowel before it, do not double the consonant in derivatives: as *sleep, sleepy; troop, trooper.*

xii. All words of more than one syllable ending in a single consonant, preceded by a single vowel, and accented on the last syllable, double that consonant in derivatives: as *commit, committee; compel, compelled; appal, appalling; distil, distiller.*

xiii. Nouns of one syllable ending in *y,* preceded by a consonant, change

y into *ies* in the plural; and verbs ending in *y*, preceded by a consonant, change *y* into *ies* in the third person singular of the present tense, and into *ied* in the past tense and past participle: as, *fly, flies; I apply, he applies; we reply, we replied*, or *have replied*. If the *y* be preceded by a vowel, this rule is not applicable: as, *key, keys*; *I play, he plays*; we have *enjoyed* ourselves.

xiv. Compound words whose primitives end in *y* change *y* into *i*: as, *beauty, beautiful; lovely, loveliness.*

633. Words Pronounced Alike, but Differing in Spelling and Signification.

Adz, adds.
Air, heir.
Ale, ail.
All, awl.
Ark, are.
Ate, eight.
Aisle, isle.
Aught, ought,
Bale, bail.
Baize, bays.
Bay, bey.
Base, bass.
Bare, bear.
Bade, bad.
Ball, bawl.
Be, bee.
Berth, birth.
Beat, beet.
Berry, bury.
Beach, beech.
Bell, belle.
Beer, bier.
Bite, bight.
Bin, been.
Blue, blew.
Bore, boar.
Board, bored.
Borne, bourn.
Bow, bough.
Brake, break.
Bred, bread.
Bruise, brews.
By, buy.
Cast, caste.
Cede, seed.
Cent, scent.
Cell, sell.
Coarse, course.
Cord, chord.
Core, corps.
Cote, coat.
Cruise, crews.
Clue, clew.
Day, dey.
Dram, drachm.
Draft, draught.
Dear, deer.
Die, dye.
Doe, dough.
Due, dew.
Dun, done.
Fain, feign.
Faint, feint.
Fate, fête.
Frays, phrase.
Fare, fair.
Feat, feet.
Flea, flee.
Freeze, frieze.
Fir, fur.
Find, fined.
Fort, forte.
Fore, four.
Flue, flew.
Flour, flower.
Foul, fowl.
Gate, gait.
Grate, great.
Gall, gaul.
Gild, guild.
Gilt, guilt.
Groan, grown.
Hale, hail.
Hay, hey.
Hart, heart.
Hall, haul.
Hare, hair.
Heal, heel.
Hear, here.
Herd, heard.
Hide, hied.
Hie, high.
Hire, higher.
Him, hymn.
Horde, hoard.
Hoe, ho.
Hose, hoes.
Hole, whole.
Hoop, whoop.
Hue, hew.
Hour, our.
Idle, idol.
In, inn.
Jam, jamb.
Knave, nave.
Knead, need.
Knight, night.
Kill, kiln.
Knows, nose.
Knot, not.
Knew, new.
Lade, laid.
Lane, lain.
Lapse, laps.
Lacks, lax.
Lee, lea.
Lean, lien.
Leach, leech.
Leaf, lief.
Leak, leek.
Led, lead.
Levee, levy.
Lie, lye.
Liar, lyre.
Limb, limn.
Links, lynx.
Load, lode.
Lone, loan.
Lo, low.
Lock, loch.
Made, maid.
Male, mail.
Mane, main.
Maze, maize.
Mead, meed.
Mean, mien.
Meat, meet.
Mite, might.
Mist, missed.
Moan, mown.
Mode, mowed.
Mote, moat.
Muse, mews
Nay, neigh.
Nit, knit.
Nun, none.
Oar, ore.
Ode, owed.
One, won.
Pale, pail.
Pane, pain.
Plane, plain.
Plate, plait.
Pray, prey.
Pause, paws.
Pare, pair.
Peace, piece.
Peak, pique.
Peal, peel.
Peer, pier.
Pearl, purl.
Pole, poll.
Pore, pour.
Port, porte.
Plum, plumb.
Quire, choir.
Rain, rein.
Raze, raise.
Rack, wrack.
Rap, wrap.
Read, reed.
Reek, wreek.
Red, read.
Reek, wreak.
Rest, wrest.
Reteh, wreteh.
Rime, rhyme.
Rite, right.
Rye, wry.
Rode, road.
Roe, row.
Rote, wrote.
Rose, rows.
Rood, rude.
Ruff, rough.
Rung, wrung.
Sale, sail.
Slay, sleigh.
Stake, steak.
Strait, straight.

Stare, stair.
Scen, scene.
Sea, see.
Seam, seem.
Shear, sheer.
Sleave, sleeve.
Steal, steel.
Serf, surf.
Serge, surge.
Side, sighed.
Sine, sign.
Stile, style.
Slight, sleight.
Sole, soul.
So, sow.
Sore, soar.
Stoop, stoup.
Slue, slew.
Skull, scull.
Sum, some.
Sun, son.
Tale, tail.
Tray, trey.
Tacks, tax.
Tare, tear.
Team, teem.
Tear, tier.
Tide, tied.
Their, there.
Throe, throw.
Throne, thrown.
Toad, towed.
Toe, tow.
Told, toled.
Tole, toll.
To, too.
Threw, through.
Tun, ton.
Vale, vail.
Vane, vein.
Vial, viol.
Wale, wail.
Wane, wain.
Wait, weight.
Waste, waist.
Wave, waive.
Way, weigh.
Weak, week.
Wean, ween.
Would, wood.

634. Words Improperly Used.—As we have before said, the most objectionable errors made in writing and speaking, are those in which words are employed that are unsuitable to convey the meaning intended. An amusing error of this class, is attributed to Mrs. Partington. The venerable matron was speaking of her son, who, she said, was quite stage-struck. "In fact," remarked the old lady, "he is going to a *premature* performance this evening!" Considering that most *amateur* performances are *premature*, we hesitate to say that this word was misapplied; though, evidently, the maternal intention was to convey quite another meaning. We give below a list of words which are often improperly used for each other.

Ant for Aunt.
Are for Air.
Accept for Except.
Addition for Edition.
Allowed for Aloud.
Apposite for Opposite.
Appraise for Apprise.
Ascent for Assent.
Anker for Anchor.
Alter for Altar.
Barren for Baron.
Bridal for Bridle.
Braid for Brayed.
Bald for bawled.
Capital for Capitol.
Carat for Carrot.
Celery for Salary.
Censor for Censer.
Choral for Coral.
Council for Counsel.
Courier for Currier.
Currant for Current.
Cymbal for Symbol.
Chaste for Chased.
Calendar for Calender.
Cannon for Canon.
Canvas for Canvass.
Clause for Claws.
Cellar for Seller.
Ceiling for Sealing.
Cession for Session.
Cygnet for Signet.
Cousin for Cozen.
Dessert for Desert.
Dual for Duel.
Emerge for Immerge.
Eminent for Imminent.
Gamble for Gambol.
Genius for Genus.
Lineament for Liniment.
Meddle, for Medal.
Metal for Mettle.
Miner for Minor.
Missal for Missile.
Manner for Manor.
Mantle for Mantel.
Marshal for Martial.
Mucus for Mucous.
Pedal for Peddle.
Pendant for Pendent.
Pistil for Pistol.
Principle for Principal.
Profit for Prophet.
Prophesy for Prophecy.
Radish for Redish.
Stationary for Stationery
Travel for Travail.
Tract for Tracked.
Wether for Weather
Wade for Weighed.

635. Grammar for the Young.

Three little words you often see,
Are Articles—*a*, *an*, and *the*.

A Noun's the name of any thing,
As, *school*, or *garden*, *hoop*, or *swing*.

Adjectives tell the kind of Noun;
As *great*, *small*, *pretty*, *white*, or *brown*.

Instead of Nouns the Pronouns stand—
Her head, *his* face, *your* arm, *my* hand.

Verbs tell of something being done—
To read, *write*, *count*, *sing*, *jump*, or *run*.

How things are done the Adverbs tell;
As, *slowly*, *quickly*, *ill*, or *well*.

Conjunctions join the words together,
As, men *and* women, wind *or* weather.

The Preposition stands before
A Noun; as, *in* or *through* a door.

The Interjection shows surprise;
As, *oh!* how pretty; *ah!* how wise.

The whole are called Nine Parts of Speech,
Which Reading, Writing, Speaking, teach.

636. Management of Household Affairs.—To be able to superintend a house properly, requires as much study and perseverance, as the acquisition of music, painting, or any other accomplishment. While the latter delight our eyes and ears, they are but poor substitutes for a practical knowledge of domestic affairs. Do not imagine that we have any objections to accomplishments; that we would have a woman be merely an upper servant in the house it is her province to guide; that we consider the kitchen her only sphere, or that we undervalue intellectual acquirements, and elegant occupations. Far from it. But we would have her familiar with the routine of domestic duties, well acquainted with the minutiæ of household economy; competent to direct, and in case of necessity, able and willing to discharge these duties herself. Some persons affirm that they have no capacity for this matter, no taste for that. To such we would reply:—If the things alluded to are necessary parts of duty, cultivate a taste, persevere in endeavoring to improve a capacity for them. This world is a beautiful one, in spite of what grumblers say, and thousands would find it a much happier one if they studied their duties more, and sought their pleasure or indulged their fancies less. To all of us it is intended to be a place of trial and probation, and every human being in it exercises a greater or less influence upon the character, the happiness, and the destinies of many others. We are also accountable for opportunities wasted and blessings neglected or transformed; and in domestic affairs, women are especially so. There is a medium, however, in all things. A woman who worries all within her reach, by her ultra-housewifery, who damps one down with soap and water, poisons one with furniture polish, takes away one's appetite by the trouble there is about cooking the simplest thing, and fidgets one by overdone preciseness and cleanliness, is almost as much to be avoided as a downright sluggard. As it is the province of man to provide the necessaries and comforts of home, so it is the province of woman wisely to dispense them; and upon the due performance of her onerous duties rests the social joy and peace of the home; while nothing but muddle, misery, and ruin, can follow the neglect of them.

637. Government.—As a country cannot be governed without laws, neither can a household; and a wise and just system of government is as necessary to the well-being of the one, as the other. A mistress, therefore, should possess both legislative and executive talent, and the higher the order, the more successful will be her administration. Method, cleanliness, and economy are the key-stones of

domestic comfort; to secure which, a certain routine of daily and weekly duties must be laid down, and it devolves upon the mistress to see that these are properly and regularly performed, and that all incidental matters are likewise attended to. She should neither hold the reins of government loosely and negligently, nor yet too sternly; but should quietly exercise a general surveillance over every part of the house, and this should be done without vexatious interference; without tyranny, and without ebullitions of temper.

638. Servants.—In the management of servants, prudence and patience are required. We know it is customary to speak of domestics as "necessary evils," but there is certainly some truth in the old adage; that "as the mistress is, so is the maid." Many a girl would have become a valuable help, a respectable and reasonable person, if, in her first service, she had found a mistress who knew what the duties of a Christian woman at the head of a house were. It is true, there are characters which no treatment, however judicious, can permanently benefit, but the influence of a good example will not be entirely lost, even upon these. In employing servants, the mistress should, if possible, learn something of the persons with whom they have lived, and all stipulations as to wages, holidays, company, etc., should be clearly stated, and rightly understood. The household duties should be arranged each day, immediately after breakfast; and this is the time for the mistress to say what she intends having for dinner. By adopting this plan, the servant will know just what she has to do, and be able to arrange her work so as to perform it properly. Where two or more servants are kept, one should always be tidy, and ready to answer the door; and the lady's apartments should always be in order, so that visitors may be admitted without delay or bustle. Indeed the best evidence of a well arranged establishment, is the absence of all fuss. It is the duty of every mistress to make her servants comfortable; and while she must not weaken her authority by familiarity or false indulgence, she should endeavor, by precept and example, to guide and benefit those dependent upon her.

639. Marketing.—The process of properly providing provisions and other necessary articles for a household, may be said to elevate itself almost into an art, by the practice of which, an income may be considerably economized, and at the same time a greater amount of satisfaction afforded to all parties concerned. The chief thing which conduces to good marketing is, as a matter of course, the possession of means by which it can be achieved, for, with ready money a person may not only buy better articles, but obtain them at some ten or fifteen per cent. cheaper, than the person who goes to market on credit. The person who pays ready money is free to go to any shop she pleases, in the event of not being well served, and the fact is so obvious to the tradesman that he considers it a wise policy to pay particular attention to the wishes of his ready-money customers. When persons go marketing, they should not trust to memory for the articles they require, but put them down in a little book, or on paper; and previously to setting out, they should ascertain whether or not a fresh supply is wanted of the ordinary articles of consumption. Persons should be especially warned not to make a practice of buying low-priced commodities, for, whether these are in the shape of provisions, or for household use, they almost invariably turn out unsatisfactory, and the value of the parts wasted, or compelled to be thrown away as unfit for use, far exceeds the imaginary saving attending the lowness of price. In purchasing articles of consumption, as meat, fish, vegetables, it is of the utmost importance that they should be

tender, sweet, and fresh. Whether they are so or not, may be readily ascertained by paying attention to the indications which articles of food in their fit or unfit state always give. This work furnishes the external appearance and condition of the various articles of consumption, when treating of them.

Another useful piece of knowledge is that some classes of provisions are more economical than others. In the different joints of meat this is especially the case; the inexperienced housewife, therefore, should study this essential point, as she will find it of the greatest service. Tradesmen generally have a way of endeavoring to persuade persons to buy certain articles which it is to their interest to sell, but not to the interest of the purchaser to buy. In such cases, housewives should cut short the tradesman's ill-bestowed eloquence by at once declaring that those articles will not suit her. When the shopkeeper discovers, by the mode of meeting him, that the purchaser knows what she is about, he will not again endeavor to force his refuse upon his acute customer. Of the kinds of articles which improve by keeping, it is as well, where the money can be spared, to lay in a supply which will last for some time. The same plan applies to articles in which there is a periodical and almost certain rise in the prices; for by thus anticipating the market, a considerable saving may be of course effected. Many housewives remain in ignorance all their lives of the principles of economical and judicious marketing, simply because they will not inform themselves of the rules by which this useful knowledge may be attained. This either arises from indifference or from a false shame in letting other people see that a certain amount of inexperience exists, which the most notable housekeeper of afterlife must have displayed when young. Beginners, therefore, should not hesitate to ask for information of their older or more experienced friends, and adding to their store of information little by little, attain at length a perfect knowledge of how to go to market.

640. How to Choose Meat, Fish, Game, etc.—As it is of the utmost importance that meats should be in a healthy condition when purchased, the following directions will prove serviceable to housekeepers generally:

641. Beef.—The grain of ox beef, when good, is loose, the meat red, and the fat inclining to yellow. Cow beef, on the contrary, has a closer grain, a whiter fat, but meat scarcely as red as that of ox beef. Inferior beef, which is meat obtained from ill-fed animals, or from those which had become too old for food, may be known by a hard, skinny fat, a dark red lean, and, in old animals, a line of horny texture running through the meat of the ribs. When meat pressed by the finger rises up quickly, it may be considered as that of an animal which was in its prime; when the dent made by pressure returns slowly, or remains visible, the animal had probably passed its prime, and the meat consequently must be of inferior quality.

642. Mutton.—Mutton is considered in its prime at five years old; but as this is rather difficult to find, the nearer it approaches that age the primer it will be. Young mutton will, if squeezed with the fingers, feel tender; if old, it will remain wrinkled; the fat will also be clammy and fibrous. In ram mutton the grain is close, of a deep red color, and the fat spongy; in ewe mutton, the flesh is paler than in the wether, and has a closer grain. Short-shanked mutton is considered the best.

643. Lamb.—This meat will not keep long after it is killed. The large vein in the neck is bluish in color when the fore quarter is fresh, green when becoming stale. In the hind quarter if not recently killed, the fat of the kidney will have a slight smell, and the knuckle will have lost its firmness.

644. Veal should be delicately white, though it is often juicy and well-flavored when rather dark in color. Butchers, it is said, bleed calves purposely before killing them with a view to make the flesh white, but this also makes it dry and flavorless. On examining the loin, if the fat enveloping the kidney be white and firm-looking, the meat will probably be prime and recently killed. Veal will not keep so long as an older meat, especially in hot or damp weather: when going, the fat becomes soft and moist, the meat flabby and spotted, and somewhat porous like sponge. Large, overgrown veal is inferior to small, delicate, yet fat veal. The fillet of a cow-calf is known by the udder attached to it, and by the softness of the skin; it is preferable to the veal of a bull-calf.

645. Fresh Pork.—When good, the rind is thin, smooth, and cool to the touch; when changing, from being too long killed, it becomes flaccid and clammy. Enlarged glands, called kernels, in the fat, are marks of an ill-fed or diseased pig.

646. Ham.—Hams with short shanks are best. To test the freshness of the meat, insert a knife under the bone, and if it comes out clean and smells fresh, the ham is good; but if the knife is daubed, and has a rank and disagreeable odor, the ham is bad.

647. Bacon.—The fat of good bacon will feel oily and look white, the lean of a fresh red color, and firmly attached to the bone; if it be young, the rind will be thin and tender, and if old, thick, and tough.

648. Venison.—When good, the fat is clear, bright, and of considerable thickness. To know when it is necessary to cook it, a knife must be plunged into the haunch, and, from the smell, the cook must determine on dressing or keeping it.

649.—Common Domestic Fowls, when young, have the legs and combs smooth; when old they are rough, and on the the breast long hairs are found instead of feathers. Fowls and chickens should be plump on the breast, fat on the back, and white-legged.

650. Turkey.—A turkey-cock, if young, has smooth black legs with a short spur, the eyes full and bright, and the feet limber and moist. Observe that the spurs are not cut or scraped; an operation often performed to deceived the unwary. A hen turkey is known to be fresh by the same rules; if she is old, her legs will be red and rough; if she is with eggs the vent will be soft and open; if the vent is hard, she has no eggs.

651. Ducks.—If ducks are fat they are hard and thick on the belly. If fresh killed the legs are limber, if stale, the feet are dry and stiff. The feet of tame ducks are thick, and inclining to a dusky yellow; wild ducks have smaller feet than tame ones, and of a reddish color.

652. Goose.—The flesh of a fine goose should be of a clear pink color, the liver pale, the feet and the bill yellow and free from hair, and the claws pliable. When contrary characteristics to these are noted, the bird is sure to be old and tough.

653. Rabbit.—A rabbit when old, has the haunches thick, the ears dry and tough, and the claws blunt and ragged. A young rabbit has claws smooth and sharp, ears that tear easily, and a narrow cleft in the lip.

654. Pheasants.—The cock bird is considered the choicest, except when the hen is with egg. If young its spurs are blunt and short, or round; if they are long and sharp, the bird is old. Examine the hen at the vent; if that is open and green, it is a sign she is stale; if she is with egg, it will be soft; if stale, the skin when rubbed hard with the finger, will peel off.

655. Partridges.—If young, the bill is of a dark color, and the legs yellowish; if new, the vent will be firm; if they are old the bill will be white, and the legs blue; if stale, the vent will appear greenish, and the

skin will peel when touched by the hand.

656. Pigeons are very indifferent food when they are too long kept. Suppleness of the feet shows them to be young; the state of the flesh is flaccid when they are getting bad from keeping. Tame pigeons are lager than the wild.

657. Woodcocks and Snipes, when old, have the feet thick and hard; when these are soft and tender, they are both young and fresh killed. When their bills become moist, and their throats muddy, they have been too long killed.

658. Fish.—The signs of the freshness and good condition of fish are unmistakable. If fresh, the eyes will be bright, the gills of a fine clear red, the body stiff, the flesh firm, yet elastic to the touch, and the smell not disagreeable; but if the fish be stale, the very reverse of these conditions will make themselves apparent.

659. Salmon.—When salmon is fresh, the flesh is of a fine red, but particularly so at the gills; the scales should be very bright, and the fish very stiff.

660. Trout.—It is a very fine fresh-water fish; all the kinds of this fish are excellent, but the best are the red and yellow trout. The females are considered the best, and are known by having a less head and deeper body than the male; their freshness is known by the same methods that have been already mentioned for other fish.

661. Lobsters.—As a rule, it is better to buy lobsters alive. Choose those which are heavy and lively, and full of motion, which is an index of their health and freshness. Those of middle size are the best. Always reject them when the shell is encrusted, this being an infallible sign that they are old. The hen lobster is distinguished from the male by having a broader tail, and less claws. When boiled, the tail of the lobster preserves its elasticity if fresh, but loses it as soon as it becomes stale. The heaviest lobsters are the best; and when they are light and watery, they are unfit for eating.

662.—Oysters.—If the oysters are fresh the shell will be firmly closed; when the shells are opened they are dead and unfit for use. When buying canned oysters, if the can is *bulged* they should be rejected. Medium sized oysters are generally preferred for stewing; the larger ones for frying.

663. Crabs must be chosen by observations similar to those given above in the choice of lobsters. Crabs have an agreeable smell when fresh.

664. Prawns and Shrimps, when fresh, are firm and crisp.

665. Household Economy.—Economy should be the first point in all families, whatever be their circumstances. A prudent housekeeper will regulate the ordinary expenses of a family according to the annual sum allowed for housekeeping. By this means the provision will be uniformly good, and it will not be requisite to practise meanness on many occasions for the sake of meeting the extra expense attending one. The best check upon outrunning an income, is to pay bills weekly; for you may then retrench in time. This practice is likewise a salutary check upon the accounts themselves. A bill of parcels and receipt should be demanded, however small the amount, even if it be paid at the time of purchase; and, to avoid mistakes, let the goods be compared with these when brought home; or, if paid for at a future period, a bill should be sent with the articles, and regularly filed. An inventory of furniture, linen, china, etc., should be kept, and the items examined by it twice a year or oftener, if necessary. In articles not in common use, tickets should be sewn on each, numbering them, and specifying to what they belong. Those who have store-closets, will find their advantage in purchasing some things wholesale. Candles should be bought in the latter part of summer, when they are usually

cheaper, and a store laid in, for they improve by keeping. So does soap. Coals, too, should be ordered in July or August, and if there is cellarage, a stock for the winter laid in. Many articles, of grocery, may often be purchased in quantities at considerable saving. All good housekeepers will provide themselves with weights and scales, and thus be prepared to check the *quantities* of goods sent them by their tradespeople, who are as liable to make errors in weighing as in casting their bills. We cannot too particularly impress this upon the attention of our readers, as an essential means to protect themselves against errors in weight, whether arising from accident or design. Many heads of families are exceedingly particular about the *price* of their purchases, who are utterly regardless whether or not they have the *weight* they paid for. The following minor hints are also worth observing: Preserve the backs of old letters to write upon. If you have children who are learning to write, buy white paper by the quantity, and keep it locked up ready to be made into writing books; it does not cost half so much as it does to buy them at the sationer's. Do not buy ready-made articles if they can be made at home; by the latter method they will be found much cheaper and better. Linen rags should be carefully saved, for they are extremly useful in sickness. Do not cook a fresh joint, whilst any of the last remains uneaten; with a little judgment, many excellent dishes may be contrived. Have all pieces of stale bread eaten up before a new loaf is cut, and put all the pieces left at meals into a pan, to be converted into puddings and cakes. Finally, throw nothing away that can be of the slightest service to your own family, or of benefit to a poorer one.

666. To Corn Beef.—Six pounds of salt, one pound of sugar, and four ounces of saltpetre, boiled with four gallons of water, skimmed and allowed to cool, forms a very strong pickle, which will preserve any meat completely immersed in it. To effect this, which is essential, either a heavy board or a flat stone must be laid upon the meat. The same pickle may be used repeatedly provided it be boiled up occasionally with additional salt, to restore its strength.

667. Directions for Salting Meat.—In the summer season, especially, meat is frequently spoiled by the cook forgetting to take out the kernels; one in the udder of a round of beef, in the fat in the middle of the round, and those about the thick end of the flank. If these are not taken out, the meat will not keep. The art of salting meat is to rub in the salt thoroughly and evenly into every part, and to fill all the holes full of salt where the kernels were taken out, and where the butcher's skewers were. A round of beef weighing twenty-five pounds will take a pound and a half of salt to be rubbed in all at first, and requires to be turned and rubbed every day with the brine; it will be ready for dressing in four days, if you do not wish it very salt. In summer, the sooner meat is salted after it is killed the better, and care must be taken to defend it from flies. In winter, it will eat the shorter and tenderer, if kept a few days (according to the temperature of the weather) until its fibre has become short and tender, as these changes do not take place after it has been acted upon by the salt. In frosty weather, take care that the meat is not frozen, and warm the salt in a frying-pan. The extremes of heat and cold are equally unfavorable for the process of salting—in the former the meat changes before the salt can affect it—in the latter it is so hardened, and its juices are so congealed, that the salt cannot penetrate it. If you wish it red, rub it first with saltpetre, in the proportion of half an ounce and the like quantity of moist sugar, to a pound of common salt. You may impregnate meat with a very agreeable vegetable flavor, by pounding some

sweet herbs and an onion with the salt; you make it still more relishing by adding a little zest or savory spice.

668. Cooking Meats.—The best method of cooking animal food, so as to ensure easy and perfect digestion, with the elimination of all its nutritious properties, is either by roasting, broiling, or boiling. And the most hurtful of all forms of cookery is that of frying; for by this process the surface of the meat is rendered hard and leathery, and extremely difficult of digestion. It is important, however, to understand the theory of each method of cooking, so that whichever may be adopted, may be done well. Bad cooking, though by a good method, is far inferior to good cooking by a bad method.

669. Roasting.—Sirloin and rib pieces are the best for roasting. Do not have your oven too hot at first, or the outside will become hard, and acquire a disagreeable taste. The heat will also be prevented from penetrating it, and the meat will appear done before it is little more than half roasted, besides losing the pale brown color so inviting in roast meat. The meat must be well basted to keep it moist. When it does not supply dripping enough for this purpose, add some that has been saved on some former occasions, and properly prepared: this answers as well, if not better, than butter. The more it is basted the less time it will take to roast it, as it keeps the meat soft and mellow on the outside, and the fire acts upon it with greater force. Roasting meat should not be sprinkled with salt till nearly done, as it tends to draw out the gravy. Basting with a little salt and water when the meat is first laid down is often done, but the practice is not good. Where the fat is very fine and delicate, it is best to cover it with writing paper to prevent it wasting; always fasten on the paper with tape, twine, or any other suitable string. Before the meat is quite done, increase your fire, so as to brown it. If it is to be frothed, baste it with butter, and dredge it carefully with flour. When the joint is quite done, take it up immediately, as every moment beyond that is injurious to the meat.

670. Time Required for Roasting.—With respect to the time required for roasting, the general rule of a quarter of an hour to a pound of meat is a pretty fair estimate, but it will not do for all kinds of joints. Attention must be paid to the nature of the joint, whether thick or thin, the strength of the fire, and the frequency with which it is basted. Much will depend on the time the meat has been kept, and on the temperature of the weather. The same weight of meat will require twenty minutes or half an hour longer in cold weather to roast it than in warm weather; and the same allowance should be made between meat fresh killed, and that which has been kept till it is tender. The mean time of roasting for various joints and articles of food may be estimated as follows:—

	H.	M.
Sirloin of Beef, fifteen pounds	4	00
Ribs of Beef, fifteen pounds	3	30
Leg of Mutton, eight to ten pounds	2	30
Shoulder of Mutton, eight pounds	2	00
Fillet of Veal, ten pounds	3	00
Brisket of Veal, eight pounds	2	00
Leg of Lamb, six pounds	1	30
Loin of Pork, six pounds	2	00
Leg of Pork, eight pounds	2	40
Loin of Lamb, four pounds	1	15
Ox-heart stuffed,	2	00
Calf's-heart	1	00

Sucking Pig, from an hour and a quarter, to two hours, according to size.

GAME AND POULTRY.

	H.	M.
A small fowl	0	30
A large fowl	0	45
A goose	1	15
A duck, if large	1	00
Partridges	0	30
A medium sized turkey	1	30
Wild duck and grouse	0	35
Rabbit	1	00
Chicken, medium sized	0	40
A haunch of venison	3	30

671. Basting Roast Meats.—As the natural juices become dried by the action of the fire, they require to be replaced by artificial ones; were it not for this, the meat would be rendered dry and comparatively tasteless: on the other hand, meat should not be too much basted, or it becomes sodden and loses its firmness. A certain degree of intelligence is required to be exercised in this particular. As a general rule, mutton should be basted sparingly, beef moderately, and veal continuously. Basting may be made simply of a mixture of butter, salt, and water; but a more savory kind is made from minced sweet-herbs, butter, and claret mixed together.

672. In a Dietetic point of view, roasted meat is not so easily digested as boiled meat, but it is more nutritious. It retains, moreover, the gelatine, which is greatly dissolved out in the process of boiling. If, however, the cooking is carried too far, and the meat be over-done, its nutritious properties are impaired. On the other hand, if meat is under-done, although more nutritious, it is certainly less digestible.

673. The Loss by Roasting.—The loss per cent. on roasting beef; viz., on sirloins and ribs together, is nineteen and one-sixth; on mutton, viz., legs and shoulders together, twenty-four and four-fifths; on fore-quarters of lamb, twenty-two and one-third; on ducks, twenty-seven and one-fifth; on turkeys, twenty and one-half; on geese, nineteen and one-half; on chickens, fourteen and three-fifths. So that it will be seen by comparison with the per-centage given of the loss by boiling, that roasting is not so economical; especially when we take into account that the loss of weight by boiling is not actual loss of economic materials, for we then possess the principal ingredients for soups; whereas, after roasting, the fat only remains.

674. **Boiling.**—This important culinary process is seldom properly performed. Most persons seem to think, if they put meat into a pot, and set it over the fire for a certain time, whether it simmers without a bubble, or boils at a gallop, that nothing more is required. The proper method may be learned by attending to the following directions: Let the saucepan be as nearly as possible the size to hold the joint or piece of meat that is to be boiled, so that no unnecessary quantity of water may be required to cover the meat, and yet that every part of the meat may be covered by water. Should any part be left uncovered, it will be hard and discolored, and injure the quality of the whole. The proportion of water is a quart for every pound of meat, that is supposing the meat to be fresh. Meat, previous to being placed in the saucepan, should be washed extremely clean. When the meat itself is required for solid food, and not for soups, its nutritious juices must be prevented from escaping as much as possible, which is done by plunging it into fast boiling water for a few minutes, and adding immediately afterwards as much cold water as will reduce it to a moderate temperature, at the same time taking away a part of the water, so that there is not more than is required. The water must be kept gradually but continually boiling; if it boils too fast the meat will be hard, and if in boiling slowly it is allowed to stop boiling, the meat will be underdone. When the water is beginning to boil a scum will invariably arise, which must be narrowly watched for and removed the moment it appears. After the first scumming, put in a little cold water, which will throw up the rest of the scum. The oftener it is scummed, and the clearer the top of the water is kept, the cleaner and better flavored the meat will be, but if this be neglected, the scum will boil down and impregnate the meat, thereby deteriorating both its color and quality. Take care that the covers of your boiling-pots fit close, not only to prevent unnecessary evaporation of the water, but that the smoke

may not insinuate itself under the edge of the lid, and give the meat a bad taste. Do not allow the meat to remain in the water after it is done, as it will become soddened and tasteless: dish it up immediately.

675. The Time required for Boiling.—The time required depends upon the size of the joint; the general rule is to allow twenty minutes for every pound of meat; but salt meat requires longer, and so does a particularly thick joint, such as a leg of pork or of lamb, which will require about twenty minutes in the whole above this allowance. The weather also influences the length of time for boiling, meat requiring comparatively less time in summer than in winter. The following table will be useful as an average of the time required to boil the various articles:—

	H.	M.
A ham, 20 lbs. weight, requires...	6	30
A tongue (if dry,) after soaking..	4	00
A tongue out of pickle 2½ to.....	3	00
A neck of mutton	1	30
A chicken.....	0	20
A large fowl	0	45
A capon.....	0	35
A pigeon.....	0	15

676. The Loss by Boiling, and how it may be Utilized.—According to Professor Donovan, the loss by boiling varies, from six and one-fourth to sixteen per cent. The average loss on boiling butcher's meat, pork, hams, and bacon is twelve; and on domestic poultry, fourteen and three-fourths per cent. Therefore, the water in which meat has been boiled should never be thrown away; as, with the addition of vegetables, it may be made use of for making soups and stews, and thus effect a considerable saving in large families.

677. **How to make Soup.**—In making soup the principal object is to abstract from the meat used for the preparation all the nutriment and savour it can be made to yield; this is effected by putting it into cold water and heating it very slowly indeed, and then keeping it for a specified time at the point of boiling, or letting it simmer in the gentlest manner.

678. **The Philosophy of Boiling.**—If a vessel containing water be placed over a steady fire, the water will grow continually hotter till it reaches the limit of boiling, after which the regular accessions of heat are wholly spent in converting it into steam; the water remains at the same degree of temperature, however fiercely it boils. The explanation of this is, that the heat of boiling water *never rises above 212 degrees;* when, therefore, a fierce fire, and an equally fierce ebullition are kept up, the heat above 212 degrees, as fast as it is evolved, is carried away by the volumes of steam that rise from the surface of the water; consequently, the heat kept up beyond a certain point, is a waste of fuel.

679. **Broiling.**—The apparatus required in broiling is very simple, and consists only of a gridiron to be placed over the fire; or one with channelled bars leading to a trough beneath, placed before the fire. In broiling, generally, particular regard must be paid to the cleanliness of the utensil, it must be kept quite clean, between the bars and bright on the top; before it is used the bars should be rubbed with fresh suet. It should then be heated for a few minutes, and when warm rubbed with a piece of brown paper; this will prevent the meat from sticking to the bars, or from being marked by them. Broiling requires a brisk, clear fire, the surface being modified by the sprinkling of salt. The ordinary gridiron should be placed sloping over the fire, that the fat may run off to the back of the grate, instead of falling on the live coals and smoking the meat; if this precaution should not prevent its making an occasional blaze, lift the gridiron quickly beyond the reach of the smoke, and hold it away until the fire is clear again. Turn the meat quickly and frequently while it is broiling, in order to preserve the juices; for this purpose a pair of tongs

should be used instead of a fork, which allows the juice to escape. If however, tongs are not used the fork should be stuck into the outer skin or fat of the cutlet, chop or steak, and not into the lean, as by that means a portion of the gravy will be wasted.

A steak for broiling should be three-quarters of an inch thick, and rather underdone than otherwise. It should be removed from the fire on the instant that it is deemed to be sufficiently cooked. Hot dishes should be ready to place it on, and it should be sent to table immediately.

Observe never to baste anything on the gridiron, because that may be the means of burning it and occasioning the fire to smoke; and also, if any butter or sauce be added after it is dished up, do not press the spoon or knife on the meat, as the crispness will be removed and the juices will render the viand leathery and unpalatable. Cutlets from the centre of the leg of mutton or from the neck are preferred to chops, for broiling, where any delay is likely to take place between the interval of the meat being cooked and eaten, as the fat of chops, etc., becoming chilled or soddened by standing, it not only loses its pleasantness of flavor, but has its digestibility impaired. Cutlets or meats of any other form when egged and crumbed for broiling, should afterwards be dipped into clarified butter, or sprinkled with it plentifully, as the egg-yolk and bread will otherwise form too dry a crust upon it. Broiled meats are sometimes seasoned with salt and pepper, and brushed with a little oil or butter, to keep them moist, but unless this be done, no seasoning of salt should be given until they are just ready to be dished. Broiling is the best possible mode of cooking several kinds of fish and preserving their flavor, amongst which may be specified mackerel, whiting, and salmon in cutlets; when fish is thus dressed, it should be wrapped in a thickly buttered sheet of writing paper before it is placed on the gridiron by this means it will retain its flavor better, and be less liable to be smoked. When a fowl or any other bird is cut asunder before it is broiled, the inner part should be first laid to the fire.

680. Stewing.—A wholesome, convenient, and economical mode of cookery. One of its great recommendations is the small amount of fuel consumed to sustain the gentle degree of ebullition required. Thick, well-tinned iron saucepans will answer for stewing, provided they have tightly-fitting lids to prevent the escape of the steam. The enamelled stewpans, which have superseded the old-fashioned metal ones are peculiarly well suited for this culinary process. They should always be filled with water immediately after being emptied, and will then merely require to be well worked and rinsed with more boiling water. In order to produce a good stew, the different ingredients of which it is composed should be well mixed. Meat, in stewing, is apt to stick to the bottom of the vessel. To prevent this, it is desirable to place across the stewpan some skewers, a little way from the bottom; or an inverted soup-plate may be used for the same purpose. If vegetables are old, they should be blanched or par-boiled before they are added to stews, otherwise they will give to the meat and gravy too strong a flavor. Care should be taken that the various kinds of thickening should be added at the proper time, and in a proper manner. Whole grain or seed, such as pearl-barley or rice, should be put into stews when they are at boiling heat. When bread is used for thickening, a similar rule must be observed, and care should be taken not to break it; but let it boil whole till it becomes a pulp, and incorporates itself with the liquor. All thickenings of flour or meal should be stirred with a cold liquid till it is perfectly smooth; it should then be stirred into the general mass. In spicing stews, great judgment is required, so as not to displease the general taste. It is better to use

whole spice than that which is ground. The fat which covers stews when they are cold should not be broken, if they are intended to be kept. By thus excluding the external air from the stew, it will prevent fermentation and consequent decay. The quantity of water used in stews should be double the weight of the meat; that is, a quart of water to a pound of meat, which leaves a pint of liquid stew. Salt should be used in sufficient quantity to separate the blood from the meat, and to cause it to rise in the shape of scum, which carefully remove. When the scum is raised by brisk boiling, and got rid of, let the stew simmer very gently, till all the nourishing, flavoring, and coloring properties of the meat, etc., are thoroughly incorporated with the liquor. In a dietetic point of view, stews are conceded to be more digestible and nutritious than meats otherwise cooked, inasmuch as the nutrient portions of the first are presented in a form most readily assimilated by the system, whilst at the same time not a particle of that nutriment is wasted.

681. Frying.—This is a very convenient, but, as generally practised, a very objectionable mode of cookery. The fire used for frying should neither be too slack nor too fierce, but maintain throughout the process a steady and uniform brightness; and, above all, smoke should be particularly avoided. The frying fat, be it lard, oil, butter, or dripping, must not be stale, much less rancid. This fat, on being melted in the pan, must be brought to boiling point, or nearly so before the materials to be fried are put in. The proper degree of heat may be ascertained, by putting into the fat a piece of bread, which, if it become crisp without acquiring a black color, the fat will be hot enough for frying. The meat to be fried should be cut into chops or slices of not more than half an inch in thickness, and slightly seasoned with salt and pepper. Fish is more difficult to fry than meat, on account of the softness of the fibre; it consequently requires a greater degree of attention. Before fish is put into the pan, it should be wiped thoroughly dry; it should also be brushed over with eggs and crumbs of bread, flour, or any farinaceous substance. Fish is best fried in oil. Fritters and sweet things must have either good butter, or good lard, or good oil. When the butter which is used for frying is clarified, it is not nearly so apt to burn. A rich brown color is communicated to any fried substance by pressing it, when nearly cooked, against the bottom of the pan. Fat that has fried veal cutlets, lamb steaks, etc., may be used afterwards for fish, if allowed to settle, and poured clear from the sediment; but what is used for fish would spoil meat, though it will answer repeatedly for fish, especially of the same sort, if strained. All fries served dry are dished on a napkin. When served with gravy, as with cutlets, steaks, etc., pour the fat from the pan, and throw in a small slice of butter; stir to this a large teaspoonful of flour, brown it gently, and pour in by degrees a quarter of a pint of hot broth or water; shake the pan well round, add pepper, salt, and a little ketchup, or any other sauce that may be preferred and pour it over the meat.

682. Gravies.—A variety of gravies are made to suit different dishes.

Beef Gravy. Put some slices of lean beef into a stewpan with an onion and a little pepper and salt; cover them with water, take off the scum, and let the gravy simmer until the juice of the meat is wholly extracted. Put a crust of toasted bread into it, and strain the gravy when done.

Brown Gravy.—Cut a piece of lean beef or veal into thin slices, and put them into a stewpan, with a piece of butter or a slice of fat bacon, and an onion sliced; brown the meat lightly and cover it with sufficient water or broth for the gravy; take off the scum, add pepper and salt, sweet herbs, etc., and stew the whole until the meat is thoroughly done. Strain the gravy,

and if desired, thicken with flour. It may also be flavored to suit the dish for which it is required, with ketchup, lemon-juice, cayenne, etc.

GRAVY FOR ROAST MEAT may be made by putting any trimmings of the joint into a small stewpan, and stewing them before the meat is done. Gravy is commonly made by pouring a little water over the brown parts of the joint about half an hour before it is done. Another way is to pour a little boiling water over the inferior parts of the meat after it is taken from the fire. Care should be taken in following these methods, that the meat is not soddened, by using too much water.

GRAVY FOR BOILED MEAT is usually made by putting a little of the liquor in which the meat is boiled into the dish.

GRAVY FROM BONES.—Break into pieces a pound of beef, mutton, or veal bones; if mixed together, so much the better; boil them in two quarts of water, and after it boils, let it simmer for nearly three hours; boil with it two onions, a bunch of sweet herbs, some salt and pepper; strain, and keep it for making gravy or sauces. The bones of boiled and roasted meat being scraped, washed clean, and boiled in less water, answer equally well for this purpose.

GRAVY FOR POULTRY may be made by stewing the neck, gizzard, etc., with the liver bruised; a bit of lemon-peel should be added, and a spoonful of ketchup; strain it when done.

GRAVY FOR GAME.—Use brown gravy, add a bit of lemon-peel to it, a glass of wine, etc.

GRAVY FOR VENISON is best made with the trimmings of the meat, or with mutton. Brown the pieces of meat in a stewpan, or broil them a little; cover with boiling water, take off the scum, and season with a little salt; when quite done, take the fat off.

GRAVY FOR WILD FOWL.—Add a piece of lemon-peel to some brown gravy, put in also a glass of wine and a little lemon-juice.

683. Seasoning.—This is a very important element in the art of cookery, and one which requires experience, judgment, and delicacy of taste. The precise quantities for particular dishes it is impossible to give, because tastes differ so materially that what is grateful to the palate of one person may be very disagreeable to that of another. In considering this subject, however, the following remarks on the various ingredients used in seasoning generally will scarcely be out of place. In the use of salt in cooking considerable judgment is required. The best rule is to employ as little as possible. It is easy to add salt afterwards if required; but when a dish is made too salt the fault is irremediable. Sugar may be applied with advantage in various dishes, but great care must be taken that in such preparations it should be employed to enrich, not to sweeten. The taste of sugar should not predominate, or even be recognized. In boiling vegetables, a certain portion of salt should always be put into the water. It should be well understood that pepper and all descriptions of spice require to be subjected to the action of heat to bring out their genuine flavor. In the use of spices it is important that the aroma which they give forth should not be allowed to evaporate or escape. Aromatic herbs used in seasoning should not be exposed to the open air, but excluded from it as much as possible. This may be partially effected by tying the dried herbs in paper-bags, but it is much better to reduce the leaves to a coarse powder, and confine it in well-corked bottles. Spices should be put into soups whole, allspice is one of the best for this purpose. Seville orange-juice has a finer and milder acid than lemon-juice; but both should be used with caution. Sweet herbs for soups or broths consist of knotted marjoram, thyme, or parsley—a sprig of each tied together. The older and drier onions are the stronger in flavor; in dry seasons also they are very strong: the

quantity should be proportioned accordingly. Although celery may be generally obtained for soup throughout the year, it may be useful to know that dried celery-seed is an excellent substitute. It is so strongly flavored that a drachm of whole seed will enrich half a gallon of soup as much as two heads of celery. Mushrooms are much used, and when they cannot be obtained fresh, mushroom ketchup will answer the purpose, but it should be used very sparingly, as nothing is more difficult to remove than the over-flavoring of ketchup. A piece of butter, in proportion to the liquid, mixed with flour and added to the soup when boiling, will enrich and thicken it. Arrowroot or potato-flour is well adapted for the thickening of soups in absence of flour. The fine flavoring ingredients, as ketchup, spice, wine, etc., should not be added until the soup is nearly done. Wine especially should be added late as it quickly evaporates.

684. Garnishes.—Parsley is the most universal garnish for all kinds of cold meat, poultry, fish, butter, cheese, and so forth. Horseradish is the garnish for roast beef, and for fish in general; for the latter, slices of lemon are sometimes laid alternately with the horseradish.

Slices of lemon for boiled fowl, turkey, and fish, and for roast veal and calf's head.

Carrot in slices for boiled beef, hot or cold.

Barberries, fresh or preserved, for game.

Red beet-root sliced for cold meat, boiled beef, and salt-fish.

Fried smelts as garnish for turbot.

Fried sausages or forcemeat balls are placed round turkey, capon, or fowl.

Lobster coral and parsley round boiled fish.

Fennel for mackerel and salmon, either fresh or pickled.

Currant jelly for game, also for custard or bread pudding.

Seville orange in slices for wild ducks, widgeons, teal, and so forth.

Mint, either with or without parsley, for roast lamb, either hot or cold.

Pickled gherkins, capers, or onions, for some kinds of boiled meat and stews.

685. To Pan a Beef-steak.—Let the frying-pan be made quite hot, then put in the steak and turn it frequently. No butter or fat will be necessary if the cook is attentive, and seasoning should not be used until it is done; which it will be in about ten minutes. Then salt and pepper on both sides, place on a warm dish, butter it well and send to table. To those who think a steak cannot be properly cooked without *fat*, we would say, try the above and be convinced of your error.

686. Laying out Tables.—The art of laying the table for the various repasts of the day, consists in arranging the various dishes, plate, glass, etc., methodically. The silver should be bright, the glass sparkling, the table linen pure and snowy, the room well-lighted, of comfortable temperature, and well ventilated. The pleasure of eating is greatly enhanced when comfort is studied, and taste gratified. Servants should always be accustomed to lay the cloth as neatly when the family is alone as when company is expected; they should likewise be taught to bring up and place on the table or sideboard everything likely to be required during the meal, and not have to leave the room repeatedly on trifling errands. The mistress should glance around to see that all is there; and if she perceives omissions, mention them before the meal commences. Servants should also be taught to wait at table without bustle or noise; to remove plates, etc., without rattling them; to open and close the doors gently; to lift covers from dishes so as not to let the drops of condensed steam fall on the table or those seated at it. If these things are

ordinarily insisted upon, the mistress of the house will not, when she gives a dinner party, sit on thorns, trembling lest some *gaucherie* be committed.

Tables are usually laid out according to the following rules:

687. Breakfast.—The table should be covered with a clean white cloth: the cups and saucers arranged at one end, if for tea; and at both ends, if for tea and coffee; or the coffee-cups and saucers may be arranged at the right-hand side of one end of the table; and the tea-cups and saucers on the left; the tea-pot and coffee-pot occupying the space between in front, and the urn that at the back. Some persons substitute cocoa or chocolate for coffee, in which case they are to be placed the same. The slop-basin and milk-jug should be placed to the left; and the cream, and hot milk-jugs, with the sugar-basin, to the right. The remainder of the table should be occupied in the centre by the various dishes to be partaken of; while at the sides must be ranged a small plate, with a small knife and fork for each person; the carving knife and fork being placed point to handle; the butter and bread knives to the right of their respective dishes, which occupy the centre part, and spoons in front of the hot dishes with gravy. Salt-cellars should occupy the four corners, and, if required, the cruets should be placed in the centre of the table. The dishes usually set upon the table are selected from hot, cold, and cured meats; hot, cold, cured, and potted fish; game, poultry, cold or devilled; fruit, ripe, preserved, or candied; dressed and undressed vegetables; meat-pies and patties, cold; eggs; honey-comb; entrées; and savory morsels—as grilled kidneys, ham-toast, etc. Toast should never be prepared longer than five minutes before serving. Cakes should not be baked or brought to table before they are wanted. Hot rolls should be covered with a napkin.

688. Breakfasts for Christenings, Weddings, etc.—The arrangement of these breakfasts depends greatly upon the season of the year; ornamentation with natural flowers being the chief means employed for decorative purposes. It is usual to have everything cold except the tea and coffee, and the following plan of the disposition of the breakfast table may always be carried out with effect.

Tea urn.

Lemon cakes.

Potted salmon decorated. — Butter in ice. — Ham in jelly.

Partridges, perigord. — Basket of bon-bons. — Potted char.

Preserved ginger. Ginger cream. — Preserved pine, melon, or cucumber. — Strawberry jelly.

Pastry. sandwiches with marmalade, jams, etc. — Meringles.

Chocolate. Water urn. — Plateau ornamented; or, if for a marriage or christening breakfast, a bride cake or christening cake, with flowers, etc. — Milk, Water urn. Coffee.

Tartlets. — Preserved oranges, or West Indian fruits. — Perfumed biscuit

Almond, butter, or piece of honeycomb. — Basket with confectionery. — Preserved greengages. Coffee, cream.

Potted pigeons. Tongue in jelly. — Butter in ice. — Potted lobster. Turkey in jelly.

Orange-flower cakes. Coffee urn.

Cream and sugar, in silver or cut glass jugs and dishes are presented in proper places. Game and lobster

salads may make part of the dishes, and venison is an appropriate luxury. Ice-pails may, in hot weather, be placed on the table. Plovers' eggs, hot, in a napkin, or cold, laid in moss, are tasty. At such entertainments, the lighter dessert wines are used, and also liquors. Toast, rolls, muffins, eggs, may find a place on the side table. Fruit may form a part of the repast, according to the season.

689. Luncheons or Noonings.—The luncheon is laid in two ways; one way is to bring in a butler's tray with let-down sides, on which a cloth is laid, and the things required placed on it, as upon a table. The other is to lay the cloth as for dinner, with the pickle-stand and cruet, opposite each other; and, if in season, a small vase of flowers in the centre; if not a water-jug and tumblers, which may be placed on a side-table at other times. The sides of the table are occupied by the requisites for each guest, viz., two plates, a large and small fork and knives, and dessert-spoon. A folded napkin, and the bread under, is placed upon the plate of each guest.

If French or light wines are served, they may be placed in the original bottles, in ornamental wine vases, between the top and bottom dishes and the vase of flowers, with the corks drawn and partially replaced.

The dishes generally served for luncheons are the remains of cold meat neatly trimmed and garnished; cold game, hashed or plain; hashes of all descriptions; curries; minced meats; cold pies, savory, fruit, or plain; plainly cooked cutlets, steaks, and chops; omelets; potatoes; sweetmeats; butter; cheese; salad and pickles. In fact; almost anything does for lunch, whether of fish, flesh, fowl, pastry, vegetables, or fruit.

690. Dinners.—The appearance a dinner table presents does not depend so much upon a profusion of viands, as upon the neatness, cleanliness, and well-studied arrangement of the whole. Some house-wives manage to get up really handsome dinners, at a very small expense; while others, notwithstanding their extravagance, never have but an uninviting abundance.

691. In Arranging or Laying out a Table several things require particular attention, among which are the following:—

i. A Bill of Fare at large dinner parties, where there are several courses, should be provided, neatly inscribed upon small tablets, and distributed about the table, that the diners may know what there is to come.

ii. Napkins should be folded neatly. The French method, which is very easy, of folding the napkin like a fan, placing it in a glass, and spreading out the upper part, is very pleasing.

iii. Plate should be well cleaned, and have a bright polish; few things look worse than a greasy-looking épergne and streaky spoons.

iv. Bread should be cut into thick squares, the last thing after the table is laid. If cut too early it becomes dry.

v. Lights, either at or after the dinner, should be subdued, and above the guests, if possible, so as to be shed upon the table, without intercepting the view.

vi. Carving-knives should be "put in edge" before the dinner commences, for nothing irritates a good carver, or perplexes a bad one, more than a knife which refuses to perform its office; and there is nothing more annoying to the company than to see the carving-knife dancing to and fro over the steel while the dinner is getting cold, and their appetites are being exhausted by delay.

vii. Plates and Dishes should be hot, otherwise the guests will be disgusted by seeing flakes of fat floating about in the gravy.

viii. Joints that require Carving should be set upon dishes sufficiently large.

ix. GLASS should be well rubbed with a wash-leather, dipped in a solution of fine whiting and stone-blue, and then dried; afterwards it should be polished with an old silk handkerchief.

x. THE CARVER SHOULD HAVE PLENTY OF ROOM, however closely the diners are compelled to sit together.

xi. THE VEGETABLES, if the table is very crowded, may be placed upon the sideboard, and handed round by the waiters.

xii. GEESE, TURKEYS, POULTRY, SUCKING-PIGS, etc., should be CARVED BEFORE BEING SENT TO TABLE; especially in those cases where the whole or the principal part of such dishes is likely to be consumed.

xiii. FINGER GLASSES.—In some circles, the fashion prevails of placing finger-glasses on table immediately preceding dessert; but in others, especially of the highest fashion, cut-glass bowls, partially filled with rose or orange-flower water, iced in summer and lukewarm in winter, are handed down each side of the table, upon salvers.

692. Laying the Cloth.—Great care is required in opening the table-cloth to avoid rumpling it, and for this purpose it should first be placed lengthwise on the table, opening it only so far as to be still double. The double edge is placed exactly down the middle of the table, and then the upper half is smoothly turned over the still uncovered portion of the table, and gently smoothed down with the hand, but leaving the folds apparent, and the middle one exactly corresponding with the central lines of the table. The knives and forks should then be arranged round the table, the knives on the right and the forks on the left of each guest, the drinking glasses are set near these upon a d'oyley, and a table napkin tastily folded in the centre. The mats are then arranged down the centre of the table, the larger size at each end and the smaller ones between. The centre ornament, usually a *Candelabrum*, *plateau*, an *épergne*, or a vase of artificial flowers, must now be set on, and the castors placed between the centre piece and the top and bottom dishes. If individual salts are used they should be placed near each diner's plate; if large ones, near the castors. The spoons for assisting the various dishes, asparagus tongs, fish knife and fork or slice, and carving knives and forks, are placed in front of the respective dishes to which they belong; and knife-rests opposite to those who have to carve; with a bill of fare, and a pile of soup-plates before those that have to assist the soup.

693. WHERE TO PLACE THE DISHES.—No two dishes resembling each other should be near the same part of the table. *Soups* or broth should always be placed at the head of the table; if there are two, top and bottom; if four, top, bottom, and two sides, opposite each other, or alternately with fish. *Fish* should be placed at the head of the table; if there are two sorts, have fried at the bottom and boiled at the top; if four arrange the same as the soup. We may observe, that a white and a brown, or a mild and high-seasoned soup, should occupy either side of the centre-piece, and that it looks handsomer to have fried and boiled fish opposite each other, but they should never be placed upon the same dish. Fish is generally served upon a napkin, the corners of which are either turned in or thrown over the fish, or upon a piece of simple netting, which is turned in all round; but we recommend our readers to use the elegant serviette, as being more stylish. Oval or circular dining-tables require to have the dishes arranged in a shape corresponding to the table.

694. WHEN REGULAR COURSES are served, the following order is usually observed:—

The first course generally consists of soups and fish, which are removed by

the roasts, stews, etc., of the second course.

The second course when there are three, consists of roasts and stews for the top and bottom; turkey or fowls, ham garnished, tongue, or frieandeau, for the sides; with small made-dishes for corners, served in covered dishes, as curries, ragouts, frieassees, stews, etc. When there are two roasts, one should be white, and the other brown. Removes are generally placed upon large dishes, for, as they supply the place of the fish and soups, they constitute the principal part of the dinner. What are termed *flancs*, are not so large as the removes, nor so small as the *entrées*, or made dishes, and are generally served in a differently formed dish. They are seldom used except when there are eighteen or twenty persons.

Entrées, or made-dishes, require great care in placing them upon the table, otherwise the gravy slops over and soils the dish; they are, therefore, usually served with a wall of mashed potatoes, rice, or other vegetables, to keep them in their proper place. They should also be served as hot as possible.

The third course consists of game, confectionery, delicate vegetables dressed in the French style, puddings, creams, jellies, etc.

When there are only two courses, the first generally consists of soups and fish, removed by boiled poultry, ham, tongue, stews, roasts, ragouts, curries, or made-dishes generally, with vegetables. The second consists of roasted poultry or game at the top and bottom, with dressed vegetables, maccaroni, jellies, creams, preserved fruit, pastry and general confectionery. It is generally contrived to give as great a variety as possible in these dinners: thus a jelly, a cream, a compôte, an ornamental cake, a dish of preserved fruit, fritters, a blanemange, a pudding, etc.

695. Waiting at Table.—Much confusion is avoided by having an attendant upon each side of the table; or, if the party is large, more than one, according to the number. The usual number required for parties is given below; and if the income admit of it, the scale may be increased according to the second column, which will materially add to the comfort of the guests.

Guests.	*Servants.*	
6	1	2
12	2	3
15	3	4
20	4	6
30	6	8
40	9	12
50	12	20, etc.

Every attendant should be neatly attired, have a white neckcloth and white gloves on, should know where all the articles required are, where the dishes are to be placed, and, in fact, be acquainted with the whole routine of the party; and, therefore, it is better to provide each one with a bill of fare. When grace has been said, remove the dish covers, carefully turning them up so that no moisture can drop from them. The plates for soup should then be taken singly from the pile opposite the person assisting it, and carried to those guests that desire that particular soup, observing that ladies are to be assisted before gentlemen, and that these should commence from the head of the table, continuing to assist each until both sides are helped. Soon after the soup has been served, the servants may pass down each side of the table, and ask each guest what they will take, assisting them to the dish desired as soon as it can be procured. Bread, vegetables, and sauces, when served, should always be taken to the left side of the person to whom they are offered. When a person declines taking any more meat, place a small plate, a small knife and fork, and dessert spoon for pie or pudding, if either are to be taken. When champagne is given, it is handed round upon a waiter or salver at small parties, commencing at the right-hand side of the table from the top

and bottom simultaneously, without any distinction as regards ladies or gentlemen. In large parties the bottle being enveloped as far as the neek with a clean dinner-napkin, the servants pour the wine into the glass, at the right-hand side of each guest. By these means, there is less danger of the glasses being broken by any awkward collision.

In removing the dinner things, one servant goes round the table with a butler's tray, and the other removes and plaees the things upon it. The cloth is then brushed with a erumbrush; or the two sides are turned in, and then the cloth dexterously jerked off the table, the lights replaced, and the dessert set on. When knives, forks, and spoons are removed from dishes or plates, they should be placed in proper trays eovered with napkins; one being used for the silver, the other for the steel artieles. When plates or dishes are removed from the table, great care is to be observed with respect to holding them horizontally, otherwise the gravy, syrup, or liquid may injure the dresses of the guests.

696. To lay out the Sideboard.—Little requires to be done, except to arrange the silver, knives, cruets, and various dishes to be placed there. The silver should be arranged on one end of the sideboard, the gravy-spoons being placed bowl to handle, and the eheese-scoop, marrow-spoon, and salad-spoons or seissors, where most convenient. The knives are placed, so that a single knife ean be abstraeted without disturbing the others; earving knives and forks should be plaeed above the others, point to handle. The wine-glasses, tumblers, and finger-glasses, for dessert, are placed where most eonvenient, but usually in the eentre, at the baek, with iee-plates near to them, and the wine-glasses placed in the finger-glasses; but when only one glass is used, that is placed in the centre, mouth downwards. At very large or fashionable dinners, the finger-glasses are sometimes placed on the dinner-table with the plain and colored wine-glasses in them, and the same, refilled, are placed on again at dessert. The eruets, sauees, etc., are placed at one end, and the vegetables, ete., in the eentre front of the sideboard. A *plate basket*, for removing the soiled plates, is usually placed under the sideboard, or some other convenient part of the room; and *two knife-trays*, eovered with napkins, are placed upon a butler's tray; these are used for removing soiled earvers and forks, and the soiled silver. It is useful to have a large-sized bradawl, a eork-serew, and funnel, with strainer; the former to break the wire of the ehampagne bottles, and the latter to strain port wine, if required to be opened during dinner.

697. Table Etiquette.—Avoid all ungraeeful habits, sueh as using a knife in eating, making a noise with the lips and mouth, bringing the faee elose down to the plate, making a rattling with the knife and fork, etc. Eat peas with a fork, and do not serape up all the syrup or gravy on a plate, as though it were so preeious that you could not possibly leave a drop of it. Do not pour sauee, melted butter, etc., over meat or vegetables, but put it on one side of the plate. If helping soup, one ladleful in eaeh plate is suffieient. Fish should always be eaten with a fork aided by a pieee of bread. On no aeeount piek your teeth after dinner; it is a most unseemly habit. Be eareful not to sit so far from the table as to permit the erumbs to fall upon the earpet. Be attentive to those guests who sit near you, and antiei-pate their little wants, without appearing obsequious or obtrusive. Neither be wholly silent at the dinner table, nor too loquaeious; during the first portion of the dinner, however, the eonversation should be limited to an oeeasional remark, but towards the latter end, freer scope may be given for the discussion of topics of a light and pleasant nature. After you have

assisted yourself to condiments, do not keep them opposite you, but pass them to your next neighbors, by doing this you spare persons the awkwardness of continually asking you to pass this or that. When you are asked by the carver which part you would like of any particular dish, name at once some part, without appearing selfish or too dainty. If the host or hostess pass a plate expressly for you, do not offer it to another person, as by doing so you will be questioning the host or hostess' good taste. The use of finger-glasses demands some little delicacy, the tips of the fingers only should be immersed, or the corner of the napkin wetted and applied to the fingers and mouth. The practice of washing the hands, and gargling the mouth out, is both indelicate and offensive. Whenever you receive an invitation to dinner, answer it immediately, or at any rate within the next twenty-four hours. Arrive at the house promptly at the hour named: the absurd fashion of being half an hour or an hour behindhand is among the things that were.

698. The Dessert.—The dessert may consist of merely two dishes of fruit for the top and bottom; dried fruits, biscuits, filberts, etc., for the sides and corners; and a cake for the centre. When the party is large, and ices are served, the ice-plates are placed round the table, the ice-pails at both ends of the table, and dishes with wafer-biscuits at the sides. Some persons have the ices served in glass dishes, which, together with the wafer-biscuits, are handed round before the usual dessert. When there is preserved ginger, it follows the ices, as it serves to stimulate the palate, so that the delicious coolness of the wines may be better appreciated. The side and corner dishes usually put on for dessert, consist of:—Compôtes in glass dishes; frosted fruit served on lace-paper, in small glass dishes; preserved and dried fruits, in glass dishes; biscuits, plain and fancy; fresh fruit, served in dishes surrounded with leaves or with moss; olives, wafer-biscuits, brandy-scrolls, etc. The centre dishes may consist either of a savoy or an ornamental cake, on an elevated stand—a group of waxen fruit, surrounded with moss—a melon, a pine-apple, grapes, or a vase of flowers. Each plate should contain a knife, fork, and spoon, with two wine-glasses, arranged upon a d'oyley. These are to be placed before each guest; and a finger-glass, with cold water in summer, and luke-warm water in winter, on the right of each plate; and grape scissors and melon knife and fork, before their respective dishes. Glass bowls containing sifted sugar, with pierced ladles, or others filled with cream, are to be placed near to the centre dish, if they are required. A cut-glass jug, with a tumbler on either side, should be placed in a convenient part of the centre of the table. The wine, either cooled or not, may be placed upon the table, and the company allowed to fill for themselves, or it may be served by the waiters. Zests are put down after the dessert is removed, and consist chiefly of anchovy toasts, devilled poultry and game, and biscuits, gravy, toast, grills, etc. Coffee is the last thing served, and is generally handed round upon a salver.

699. Tea.—If after a dinner party, the tea is generally handed round by two servants, the one having tea and coffee, with hot milk, cream, and sugar, upon one tray; the other having thinly-cut and rolled bread and butter, biscuits and cake, upon another tray. If served at an evening party or dance, a servant assists the guests, as they arrive, to tea or coffee, which is ranged upon a side-table in a small room. When the guests have been assisted, they are ushered into the presence of the host and hostess. Tea when only for a small party, may be brought in upon a tray, the tea and coffee-pots occupying the centre of the tray; the cups and saucers the front; and the hot milk, cream, slop basin, and sugar, the ends. The urn is placed at the

back of the tray; and the bread and butter, cut or not, with cake, biscuits, muffins, crumpets, or toast, at the sides.

700. Suppers.—When there is no one to provide for but the family, it is usual to employ a tray with open hinges. If there is a supper-party, the cloth is laid upon the table nearly the same as for dinner; but a plate is put for each person, with a piece of bread on the left hand, and a tumbler on the right. The lateness of modern dinner-hours has now almost universally changed suppers from a solid meal into a light showy refreshment. A supper table should neither be too much crowded nor too much scattered and broken with minute dishes. Any larder moderately stored will furnish a few substantial articles for supper on an emergency; and a few sweet things, readily prepared or purchased, with patties, shell-fish and fruits, will make up the rest, if the effect of contrasted colors, flavors, and forms be understood. When a formal substantial supper is set out, the principal dishes are understood to be roasted game and poultry, meats, sliced ham, tongue, collared and potted things, grated beef, Bologna sausage, highly-seasoned cold pies of game, etc., with occasionally soup—an addition to modern suppers which, after the heat and fatigue of a ball-room or large party, is found particularly grateful and restorative. Minced white meats, lobsters, oysters, collared eels, and crawfish dressed in various forms; sago, rice, the more delicate vegetables, poached eggs, scalloped potatoes, are all suitable articles of the solid kind. To these are added ices, cakes, tarts, possets, creams, jellies in glasses or shapes, custards, preserved or dried fruits, pancakes, fritters, puffs, tartlets, grated cheese, butter in little shapes, and sandwiches; and for convivial suppers, the entire catalogue of the more stimulating dishes, as anchovy toasts, grilled bones, toasted cheese, roasted onions, salmagundi, etc. The gratification afforded by the supper, mainly depends upon the beautiful shapes and arrangements of china, glass, linen, fruits, foliage, flowers, colors, lights, or ornamental confectionery, and that light and graceful disposition of trifles which is the chief art in setting off a table.

701. Hints on Carving.—One of the most important acquisitions in the routine of daily life, is to know how to carve well. Every person who mixes with society at all, is likely to be called upon at any moment to perform this office; to refuse to undertake it savors of ill-nature and selfishness; and to perform it in an awkward and bungling manner, is painful and unpleasant for lookers-on and exceedingly humiliating to the operator. Carving is not to be considered alone as an accomplishment to be displayed at the tables of others; it is in fact a very requisite branch of domestic management, and highly important in an economical point of view; for it is notorious that a joint of meat ill carved will not serve nearly so many persons as it would if it were properly carved. But this art does not solely consist of *cutting up*, it requires a certain amount of tact and judgment to cut fairly, and to observe an equitable distribution of dainties so as to give general satisfaction. In the first place, whatever is to be carved should be set in a dish sufficiently large for turning it if necessary; but the dish itself should not be moved from its position, which should be so close before the carver as only to leave room for the plates. The carving knife should be light, sharp, well-tempered, and of a size proportioned to the joint, strength being less required than address in the manner of using it The carver must carefully avoid all clumsiness of attitude and deportment; squaring the elbows, tucking up the coat-sleeves, dropping the knife and fork, splashing the gravy, and overturning glasses, are evidences of awkwardness and ungracefulness on the part of the car-

ver. To carve standing is considered vulgar, and to obviate this the seat of the carver should be raised to the requisite height. In carving, the eye must be employed as well as the hand; there is an art in discovering when a person's plate needs replenishing, without appearing to be too solicitous, and there is also tact and delicacy in recommending some particular dainty, which you have reason to think will be acceptable. As a general rule, the carver should use his own judgment in supplying the plates, instead of putting the question to each guest as to which part he prefers, and then striving to serve him with it to the prejudice of others present.

702. Properties of Fish.—The white kinds of fish, as cod, haddock, flounders, etc., are easy of digestion, but not very nutritious; the oily kinds, salmon, eels, herrings, etc., are more difficult of digestion. The class of fish most highly esteemed is that which comes from the sea; river fish ranks next, and last in point of quality is the fish of ponds or lakes. The best sea fish is that which feeds in rocky places; the next, that which swims in deep waters; and the least wholesome, the fish that approach nearest the coast. Generally speaking, the fish which are the least oily are to be preferred. In cooking fish, as far as health is concerned, the best mode is boiling; broiling and frying not agreeing with some stomachs.

703. Cleaning Fish.—This operation requires scrupulous delicacy and nicety, to be performed properly. Wash the fish well, but do not leave it longer in water than necessary, as it loses its flavor by being soaked. Handle it lightly, and when the scales are to be removed, lay the fish flat upon its side, and hold it firmly with the left hand, while the knife is being used with the right; turn it, and when both sides are done, pour or pump sufficient water on the fish to remove the loose particles; then proceed to remove the internal parts, and do this without opening the fish more than is necessary for the purposes of cleanliness. Be careful not to leave the smallest portion of offensive matter in the inside; wash out the blood entirely, and scrape or brush it away, if needful, from the back-bone. In cases where the scales of the fish are left on, the outside of the fish should be well-washed and afterwards wiped with a coarse cloth, drawn from the head to the tail. The gills must be taken out, and the fins of fish generally should be cut off, with the exception of turbot, of which fish they are considered a great delicacy. Fish should not be cleaned in the kitchen, but if possible in the open air, and all refuse should be disposed of at once; as it soon becomes offensive.

704. Salt Fish.—Salt fish should be soaked for some hours before being cooked. Lay them in cold water, and remember to *place the flesh side down*, or your fish may not be sufficiently freshened to eat well.

705. To Boil Fish.—Fish that is to be boiled must be put on the fire in cold hard water; when it boils, skim with the greatest care, throw in a cupful of cold water to moderate the heat; then keep it simmering only, lest the outer part break before the thick and inner part be done; but "crimped fish" should be put into boiling water and simmered for a few minutes. Some coarse salt, with a small piece of saltpetre and a little horseradish, should be put into the water in which fish is boiled; it is also reckoned finer by the addition of two or three spoonfuls of vinegar. Care must be taken to preserve the roe, milt, and liver whole; to let them be sufficiently dressed, and to arrange them conspicuously when served. To judge if a large fish be sufficiently boiled, draw up the fish plate, and with a thin knife, try if the fish easily divides from the bone in the thick parts, which it will when done enough. Keep it hot, by laying the fish-plate crosswise on the kettle,

and covering with a thiek eloth moistened with hot water; if left in the water after it is dressed it loses its firmness and becomes woolly.

706. To Fry Fish.—After the fish has been well eleaned and washed, it should be wiped perfeetly dry, moistened with egg, and sprinkled with finely grated bread erumbs, or eracker dust. Then plaee it in a frypan eontaining hot lard or dripping, and let it fry quiekly, until it is of a light brown color. If the fish be done, and still retains a pale hue, draw the pan to the side of the fire, take the fish earefully up, and place it either upon a sieve turned upwards, or on the under side of a dish, and let it then drain before the fire and finish browning. If desired to have a particluarly delieate appearanee, the fish should be enveloped in a sheet of foolscap paper. Fish fried in oil obtains a much finer eolor than when dressed in lard or dripping. Butter should never be used, as it imparts a bad eolor.

707. Lobsters.—These well-known shell-fish are generally in their prime from the middle of Oetober till the beginning of May. Lobster is esteemed a very rich and nutritious aliment for persons with strong stomaehs; but for delieate persons it is a very inappropriate food, being one of the most indigestible kinds of shell-fish. To render it less injurious, the flesh should be beaten to a fibreless paste; and, to assist its digestion, it is always better to eat with it some greenmint, as lettuce, etc. Lobsters should never be partaken of unless they are perfectly fresh, for, when in the least stale, they are apt to produce the most injurious consequences.

708. Lobster Salad.—Boil a fine lobster, and when eold, eut up the meat, but not too fine, reserving the coral for the dressing; which is made as follows:—Take the yolks of four hard boiled eggs, rub them into a smooth paste with a wooden spoon, and add to this a teaspoonful of salt, the same quantity of mustard, a little eayenne pepper, and two or three tablespoonfuls of fine salad oil. Rub these well together, and add a eupful of vinegar, and a teaspoonful of essenee of eelery. Finally rub the coral smooth and add it to the other ingredients, stirring eonstantly. If lettuce is used, it should be plaeed in iee-water to erisp, and be ehopped and added to the meat just before the dressing is poured over it.

709. Dietetic Properties of Oysters.—Few articles of food are more nourishing and digestible than the oyster when eaten raw or slightly eooked; with some persons, however, oysters even in a raw state disagree. When too many oysters have been ineautiously eaten, and are felt lying eold and heavy on the stomaeh, an infallible remedy will be found in hot milk, of whieh half a pint may be drunk, and it will quiekly dissolve the oysters into a bland ereamy jelly. Weak and eonsumptive persons should always take this after their meal of oysters. The drinking of wine or spirits immediately after eating oysters is injudieious, and ealculated to make the oysters disagree; the best beverage is porter or stout. Oysters are espeeially well adapted for supper, on account of their digestible properties.

710. To Fry Oysters.—The largest oysters should be selected for frying. Have ready some beaten eggs in a bowl, and some eraeker dust on a plate; take the oyster from its liquor and press it gently in the eraeker dust, then dip into the beaten egg, and again roll it in eraeker dust. Fry in *hot* lard or butter until of a light brown eolor. The quantity of fat should be suffieient to eover the oyster, and it should be taken out the moment it is done.

711. Stewed Oysters.—Drain the liquor from two quarts of oysters, and add to it sufficient water to make a quart; season with pepper and salt, and plaee over the fire in a stewpan. When it eomes to a boil put in your

oysters, and add two ounces of butter, and two tablespoonfuls of cracker dust. The moment it comes to the second boil, put into it half a pint of cream; and in two minutes they will be sufficiently cooked. If allowed to boil longer they become tough and tasteless. If you have not the cracker dust, use the same quantity of flour thickening.

712. Dietetic Properties of Birds.—Those which serve as food may be divided into such as are domesticated, as the common fowl, turkey, duck, and goose; wild birds, usually termed game, as the pheasant, partridge, and woodcock; and some other wild birds that are not considered as game, such as the robin, pigeon, etc. The fattening and flavor of birds is very much influenced by the nature of their food. Those which feed upon grains and vegetables, as the common fowl, turkey, and pheasant, are the most delicate and have the whitest flesh. Those which live partly on animal and partly on vegetable food, as ducks and geese, are brown-fleshed and higher flavored; and those which, being aquatic, live wholly on fish, have a taste savoring of the creatures they feed upon. Different parts of the same bird differ very much in flavor and tenderness, chiefly depending upon the amount of exercise which the surrounding muscles have undergone; thus it will be found that in *birds that walk*, the wing is tender and the leg tough; while in *birds that fly*, these indications are diametrically opposite. The breast is generally considered the most tender part of the bird, but in the snipe and the woodcock the leg is preferred. The flesh of birds, particularly poultry, is extremely nutritious and easy of digestion.

713. To Preserve Game.—With few exceptions, game depends almost entirely, for the fine flavor and the tenderness of its flesh, on the time which it is allowed to hang before it is cooked, and it is never good when very fresh; but it does not follow that it should be sent to table in a really offensive state, for this is agreeable to few eaters, and repulsive to many. Game may be often rendered fit for eating when it is apparently spoiled, by carefully cleaning it, and washing it with vinegar and water. If it be suspected of any birds that they will not keep, draw, crop, and pick them; then wash them in two or three waters, and rub them with salt; have in readiness a large saucepan of boiling water, and plunge them into it, one by one, drawing them up and down by the legs, so that the water may penetrate them thoroughly. Let them remain in the saucepan for five or six minutes, then hang them up in a cold place; when they are completely drained, apply salt and pepper to the insides, and thoroughly wash them before they are dressed. By this means the most delicate birds may be preserved.

714. Game Pie.—If the birds are small, keep them whole, if large, divide or quarter them. Season them highly, and put plenty of butter into the dish above and below them, or put a beef-steak into the bottom of the dish. Cover it with good puff paste and take care not to bake the pie too much. A half-pint of hot sauce made of melted butter, the juice of a lemon, and a glass of claret poured into the dish when to be served hot, is a great improvement.

715. Game Soup.—Break the bones of cold cooked game, and cut the meat in pieces; boil the bones and meat in broth for an hour or more, then thicken the soup with the yolks of eggs and with boiled cream, and season according to taste. Care must be taken not to boil the soup after the eggs are mixed in it, or it will curdle.

716. Roast Turkey.—Strip off the feathers and carefully pick every stump from the skin. Take off the head and neck close to the body, but leave sufficient skin to tie over the part that is cut. In drawing the turkey, do not open it more than is neces-

sary, and use great precaution not to break the gall-bladder. Wipe the inside perfectly clean with a wet cloth, then with a piece of lighted writing-paper, singe off the hairs without blackening the fowl, and wash and wipe it afterwards. The filling usually employed is made of bread crumbs, mixed with butter, and seasoned with salt and pepper. To this, if desired, may be added onions and sage, or the soft parts of a dozen of oysters minced, or what will be found really nice, a little grated ham or tongue. When put down to roast, dredge it with flour, and baste often; at first, with butter and water, and afterwards with the drippings. Serve with cranberry sauce.

717. Roast Goose.—When a goose is well picked, singed, and cleaned, make the stuffing with about two ounces of onion, and half as much green sage; chop them very fine, adding four ounces of stale bread crumbs, a bit of butter about as big as a walnut, and a very little pepper and salt (to this some cooks add half the liver, parboiling it first,) the yolk of an egg or two, and, incorporating the whole together, stuff the goose; do not quite fill it, but leave a little room for the stuffing to swell. From an hour and a half to an hour and three-quarters will roast a fine full-grown goose. Send up gravy and apple-sauce with it.

718. Goose and Duck Stuffing.—Two-thirds onion, one-third green sage, chopped fine, bread crumbs equal in weight to the sage and onions; season with a little pepper and salt. Some omit the bread crumbs, and some again do not like the onions, while others add to them a clove of garlic.

719. Duck Ragout.—Half roast a duck, then score the breast in three places at each side, lightly strew mixed spices and cayenne into each cut, and squeeze lemon juice over the spices. Stew the bird till tender in good brown gravy; take it out and keep it hot; add a glass of red wine to the gravy and pour it over the duck. Wild fowl and any sort of game may be rewarmed, after being cut up, in good gravy boiling hot and thickened with bread crumbs seasoned with salt, and spices to taste.

720. Duck Hashed.—Cut up the remains of duck into neat pieces, and put into a stewpan with a tablespoonful of flour; mix well, moisten with a glass or two of wine, and sufficient broth or water to make a somewhat thick sauce; season well, add mushroom ketchup, a little sugar and cayenne pepper; let it simmer, but not boil; take out the pieces, which dress upon toast, reduce the sauce, pour over and serve.

721. Partridge Broiled.—Divide a young and well-kept partridge, and wipe it with a soft clean cloth inside and out, but do not wash it; broil it delicately over a very clear fire, sprinkling it with a little salt and cayenne; rub a little fresh butter over it the moment it is taken from the fire, and send it quickly to table, with a sauce made of a good slice of butter browned with flour, a little water, cayenne, salt, and mushroom ketchup poured over it.

722. Fricasseed Chicken.—Parboil chickens in a small quantity of water: let them cool; cut them up, and simmer them in a little gravy made from the liquor they were boiled in. When quite tender, keep them hot while the sauce is being thickened in the following manner:—Strain off the liquor, and put it back into the saucepan with a little salt, nutmeg, flour, and butter; give it one boil, and just before serving beat up the yolk of an egg in half a pint of cream, and stir them over the fire without allowing them to boil.

723. Chicken Fried.—Cut up into rather small pieces, season with salt and pepper, dredge with flour, or dip into beaten egg and cracker dust. Then drop them into a fryingpan, in

which is sufficient hot fat to cover them; fry them till they obtain an agreeable color, and serve in the form of a pyramid.

724. Rabbit Fried.—Cut a rabbit into joints, dip them into beaten egg, and then into fine bread crumbs, season with salt and pepper, and when all are ready fry them in butter over a moderate fire for twelve or fifteen minutes; simmer two or three strips of lemon-peel in a little gravy until it is well flavored with it; boil the liver of the rabbit for five minutes, let it cool, and then mince it; thicken the gravy with an ounce of butter, and a small teaspoonful of flour, add the liver, give the sauce a minute's boil, stir in two tablespoonfuls of cream and a small quantity of lemon juice; dish the rabbit, pour the sauce under it, and serve it quickly.

725. Rabbit Stewed.—Wash a rabbit thoroughly, let it lie for two or three hours in cold water, cut it into joints, dry them upon a cloth, dredge them with flour, fry them of a light brown with butter, and stew them in the following sauce: brown three ounces of butter in a stewpan, with a tablespoonful of flour, a minced onion, some pepper and salt; add a pint of gravy and the rabbits, stew them till they are tender. When the rabbit is to be dressed with a white sauce it should not be fried, but stewed in the white stock, which is seasoned with white pepper and salt, and thickened with a piece of butter mixed with flour. A few minutes before serving add a little cream.

726. Sauce for a Boiled or Stewed Rabbit.—Peel any quantity of onions, and boil them in a great deal of water; shift your water; let them boil about two hours, and then take them up, and throw them into a cullender to drain. With a knife chop them on a board, and rub them through a cullender, put them into a saucepan, just shake a little flour over them, put in a little milk, with a good piece of butter, and a little salt; set them over the fire, and when the butter is melted, they will be done; then pour them over the rabbits.

727. Venison Broiled.—Cut thin slices of venison, mix stale crumbs of bread with salt, and pepper, and spices, egg the slices, dip in the seasoned bread, broil over a clear fire, and serve with a gravy sauce.

728. Venison Fried.—Cut the meat into thin slices, and make a gravy of the bones. Fry it of a light brown, and keep it hot before the fire. Put butter rolled in flour into the pan, and stir it till thick and brown. Put in half a pound of powdered sugar with the gravy made from the bones, and some red wine. Have it the thickness of cream; squeeze in a lemon, warm the venison in it, put it in the dish and pour the sauce over.

729. Venison Steaks.—The best venison steaks are cut from the saddle; they should be cut three-quarters of an inch thick, and treated like beef steaks; serve with currant jelly.

730. Sweetbread Cutlets.—Boil the sweetbreads for half an hour in water or veal broth, and when they are perfectly cold, cut them into slices of equal thickness, brush them with yolk of egg, and dip them into very fine bread crumbs or cracker dust, seasoned with salt and pepper. Fry them in butter of a fine light brown, arrange them in a dish, placing them high in the centre, and pour under them a gravy made in the pan, and thickened with mushroom powder and flavored with lemon-juice, or sauce them with some rich brown gravy, to which a glass of sherry or Madeira has been added. When it can be done conveniently, take as many slices of a cold boiled tongue as there are sweetbread cutlets, pare the rind from them, trim them into good shape, and dress them with the sweetbreads after they have been egged and seasoned in the same way, and

place each outlet upon a slice of tongue when they are dished. For variety, substitute fried bread stamped out to the size of the outlet with a round or fluted paste or cake cutter. The crumb of a stale loaf, very evenly sliced, is best for the purpose.

731. Frizzled Beef.—Shave slices of dried beef as thin as it is possible to cut them, put them into a fryingpan with just enough water to cover them, and set over the fire for a few minutes. Then pour off the water, add a little butter, and allow them to remain over the stove until slightly crisped. Then add a little flour, work it smooth, and stir in sufficient cream to cover the meat. Give it a boil and serve.

732. Beef Tongue.—Soak for twelve hours, then put into cold water and boil slowly for three hours, or until it is tender throughout. When cold, cut in round slices, and garnish with parsley.

733. Beef Steak Smothered in Onions.—Slice two or three onions quite thin, put them into a fryingpan with a little butter, and allow them to brown nicely. Broil or pan a beef-steak, dish it and spread the onions over it. Cover and send to table.

734. Salmagundi.—A preparation used as a side dish, and a very inviting one if of delicate shape and varied colors. For this purpose, chop *separately* the white part of a cold chicken, or of veal, the yolks of four or five eggs, and the same number of whites of eggs; a large handful of parsley, some beet-root, pickled red cabbage, ham, grated tongue, or anything well flavored and of a good color. Put a saucer or basin into a round dish, or a smaller dish into a long one, then make rows round it, wide at the bottom, and growing smaller towards the top: making choice of such of the ingredients for each row as will most vary the color; put butter at the top, worked into any desired shape, and a little sprig of curled parsley may also be stuck in. Nothing need be put into the dish, as the salmagundi may be laid in rows, or put into the half whites of eggs, which may be made to stand upright by cutting off a small piece at the round end. In the latter case, each half egg has but one ingredient. Curled butter and parsley may be put as a garnish between.

735. Choice and Preparation of Vegetables.—In choosing vegetables the medium-sized sort is to be preferred to the largest, or the smallest; they are more tender, juicy, and full of flavor just before they are full grown; on the other hand, unripe vegetables are as insipid and unwholesome as unripe fruits. Roots, greens, salads, and the various productions of the garden, when fresh gathered, are plump and firm, and have a fragrance and freshness which no art can impart to them; though it will refresh them a little to put them into cold spring water for some time before they are dressed. To boil them in soft water will best preserve the color of such as are green. Previous to dressing vegetables, they should be thoroughly washed and cleansed from dust, dirt, and insects. Pick off all the outside leaves, trim them nicely, and if they are not quite fresh-gathered, and have become flaccid, it is absolutely necessary to restore their crispness before cooking them, or they will be tough and ill-flavored; lay them in a pan of clean water, with a handful of salt in it, for an hour before they are dressed. Most vegetables being more or less succulent, the full proportion of fluids is necessary for their retaining that state of crispness and plumpness which they have when growing. On being cut or gathered, the exhalation from the surface of vegetables continues, while from the open vessels of the cut surface there is often great exudation or evaporation, and thus their natural moisture is diminished; the tender leaves become flaccid, and the thicker masses or roots

lose their plumpness. This is not only less pleasant to the eye, but is a great injury to the nutritious powers of the vegetable; for in this flaccid and shrivelled state, its fibres are less easily divided in mastication; and the water which exists in vegetable substances, in the form of their respective natural juices, is directly nutritious. The first care in the preservation of succulent vegetables, therefore, is to prevent them from losing their natural moisture. They should always be boiled in a saucepan by themselves, and have plenty of water; if meat is boiled with them in the same pot, the appearance and taste of each will be spoiled. To have vegetables delicately clean, put on the saucepan, make it boil, put a little salt in, and skim it perfectly clean before the vegetables are put in, which should not be till the water boils briskly; the quicker they boil, the greener they will be. Vegetables should be taken up immediately they are done, if they remain only a few minutes over the fire afterwards, their appearance and flavor are both deteriorated. The practice of putting soda into the water in which vegetables are boiled is not a wholesome one, nor is it necessary, when the foregoing directions are attended to.

736. To Cook New Potatoes.—If quite young, rub off the skins with a towel, and boil in well salted water. When done, drain and dress with cream and butter which has been brought to a boil.

737. To Boil Potatoes.—Put them into a saucepan with scarcely sufficient water to cover them. Directly the skins begin to break, lift them from the fire, and as rapidly as possible pour off *every drop* of the water. Then place a coarse towel over them, and return them to the fire again until they are thoroughly done, and quite dry. A little salt, to flavor, should be added to the water before boiling.

738. Potato Dumplings.—Peel some potatoes and grate them into a basin of water; let the pulp remain in the water for a couple of hours; drain it off, and mix with it half its weight of flour; season with pepper and salt. If not moist enough, add a little water. Roll into dumplings the size of a large apple, sprinkle them well with flour, and throw them into boiling water. When you observe them rising to the top of the saucepan they will be boiled enough.

739. Potatoes with Mushrooms.—Boil some potatoes in salt and water; when done, cut them into slices, and put them into a stewpan, with some mushrooms and shalots shred fine, and a large slice of butter; let them stand a few minutes on the fire; add a little flour moistened with some good stock, and a seasoning of pepper and salt; let the whole stew together for about a quarter of an hour, then add the yolks of two eggs, and a little white wine vinegar.

740. Potato Jelly.—Take two or three large potatoes, wash, peel, and grate them; stir the pulp, thence procured, in a jug of water. Pass the mixture of pulp and water through a sieve, and collect the water which passes through into a basin. Let this stand for a few minutes, and a sufficient quantity of starch will have fallen for the purpose required. Pour off the water, and continue stirring up the starch at the bottom of the basin, while boiling water is being poured upon it; and it will soon and suddenly pass into a state of jelly. The only nicety required is to be careful that the water is absolutely boiling, otherwise the change will not take place. It does not require more than eight minutes to transform a raw potato into a basinful of most excellent jelly, which may be seasoned with sugar, spice, and wine to taste.

741. Potato Balls.—Mix some mashed potatoes with the yolk of an egg, roll the mass into balls, flour them, or sprinkle them with egg and bread crumbs, and fry them in clean dripping, or brown them in the oven.

742. Potatoes Scalloped.—Having boiled and mashed the potatoes, butter some clean scallop shells or patty-pans, and put in the potatoes. Smooth them on the top, cross a knife over them, strew on a few fine bread crumbs, sprinkle them a little with melted butter from a paste brush, and then set them in the oven. When they are browned on the top, take them carefully out of the shells, and brown the other side. Cold potatoes may be warmed up this way.

743. Potatoes Baked.—The potatoes employed for baking should be of a large size. They are merely washed, and put into a slow oven for about half an hour, or longer, according to their size, and are served with butter, pepper, and salt.

744. Potatoes Broiled.—Parboil potatoes, then slice them, and put them on a gridiron over a clear fire, and turn them frequently till they are of a nice brown color on both sides: serve them hot.

745. Potatoes Crisped.—Wash well, and wipe, some potatoes of good flavor: cut them up into slices from half an inch to an inch thick, free them from the skins, and pare the potatoes round and round in very thin and very long ribbons. Lay them into a pan of cold water, and half an hour before they are wanted for table, lift them on to a sieve, that they may be well drained. Fry them in good butter, which should be very hot when they are thrown in, until they are quite crisp, and lightly browned; drain and dry them on a soft cloth, pile them in a hot dish, strew over them a mixed seasoning of salt and cayenne in fine powder and serve them without delay. Five or six minutes will fry them.

746. Potatoes Fried.—If the potatoes are whole, first boil them nearly enough, and then put them into a stewpan with a bit of butter, or some beef dripping. To prevent them burning shake them about till they are brown and crisp, and then drain them from the fat. To fry cold potatoes, put a piece of dripping into a frying-pan; when melted, slice in the potatoes with a little pepper and salt; set them on the fire, and continue stirring them. When quite hot, they are ready to serve.

747. Potatoes Mashed.—Boil them till they are perfectly tender, pour off the water, and steam them very dry; peel them quickly, take out every speck, and while they are still hot, press them through an earthen cullender, or bruise them to a smooth mash with a strong wooden fork or spoon. Melt in a clean saucepan a slice of butter with a few spoonfuls of milk, or better still, of cream: put in the potatoes, after having sprinkled some fine salt upon them, and stir the whole over a gentle fire with a wooden spoon, until the ingredients are well mixed, and the whole is very hot. It may then be served immediately, or heaped in a dish, left rough on the surface and browned before the fire; or it may be pressed into a well-buttered mould, which has been strewn with the finest bread crumbs, and shaken free from the loose ones, then turned out, and browned in the oven.

748. Potato Snow.—Pick out the whitest potatoes, put them on in cold water; when they begin to crack, strain, and put them in a clean stewpan before the fire till they are quite dry, and fall to pieces; rub them through a wire sieve or cullender upon the dish they are to be sent up on, and do not disturb them afterwards.

749. Potatoes Fried with Fish.—Take cold fish and cold potatoes. Pick all the bones from the former, and mash the fish and potatoes together; form into rolls and fry with lard until the outsides are brown and crisp. For this purpose the drier kinds of fish, such as cod, hake, etc., are preferable; turbot, soles, eels, etc., are not so good. This is an economical and excellent relish.

750. Dietetic Properties of

Cabbage.—The *white* cabbage is generally dressed for food. The *red* cabbage is chiefly employed for pickling. The bluish juice extracted from the latter affords an exeellent test for both aeids and alkalies; for it turns red with the former, and green by the latter. From the extreme liability of this vegetable to pass into a state of putrefaction, it should always be dressed and eaten as soon after it is cut as possible. As an article of diet, eabbage is wholesome and nutritious, and supplies a valuable mixture with animal food. With some constitutions, however, particularly those who are dyspeptic, they are sometimes indigestible and productive of flatulency. Under any eireumstanees, they should only be eaten in a tender state, and well seasoned with pepper and salt. A few drops of vinegar also improve their flavor, and render them less likely to disagree with the stomach.

751. Cabbage Boiled.—Wash and piek it earefully, and if very large, quarter it. Put it into a saueepan with plenty of boiling water and a tablespoonful of salt; if any seum arises, take it off; boil till the stalk is tender. Keep the vegetable well covered with water all the time of boiling, and shut out any smoke or dirt arising from stirring the fire. The flavor of an old cabbage may be much improved by taking it up when half done, and putting it directly into another saueepan of fresh boiling water. When taken up, drain it in a eullender. It may either be served plain, or chopped up and seasoned with butter, pepper, and salt.

752. Cabbage Soup.—Cut a eabbage into pieees, and scald it half an hour, then take it out and put it into eold water for a few minutes; drain it, and squeeze it dry. Put some slices of bacon at the bottom of a stewpan, lay the eabbage in it with some chopped earrots, celery, and onion, fill it up with stock, and let it stew for two hours. Put some toasted bread in sippets in the bottom, then the eabbage; and lastly, pour in the soup, after skimming it clean.

753. Cabbage Stewed.—Choose two large, firm eabbages, eut them into strips and entirely remove the stalk; after well washing and draining, put them into a large pan of boiling water ready salted and skimmed, and when tender, which will be in from ten to fifteen minutes, pour them into a sieve or strainer, press the water thoroughly from them, and ehop them slightly. Put two ounces of butter into a saucepan, and when it is dissolved, add the eabbage, with sufficient pepper and salt to season it; stir it over a clear fire until it appears tolerably dry; then shake lightly in a tablespoonful of flour, turn the whole well and add by slow degrees a cup of thick cream: veal-gravy or good white sauce may be substituted for this.

754. Cabbage Mashed with Cream.—Mash the cabbage, slice and blanch it, boil it in water with a liftle salt, and when it is nearly tender, take it out and dip it in eold water; then put it into a saucepan with a piece of butter, and add as mueh eream as will eover it, cook gently for a few minutes and serve.

755. Carrot Stew.—Scrape and wash the earrots, and after blanching them, eut them in sliees. Make a sauee with a slice of butter, some salt, pepper, and shred parsley; moisten with milk, and thieken with the yolks of three or four eggs. Let them stew a short time, and serve with the sauee. A few slices of bacon may be added and served with it.

756. Carrots Boiled.—Serape, wash, and elean them; if large, cut them into two or four pieces, set them over the fire in boiling water with some salt in it, and boil them for two or three hours. Very young carrots will only require one hour.

757. Carrot Mashed.—Boil till quite tender some fine, highly flavored carrots, press the water from them, and rub them through a fine hair

sieve; put them into a clean saucepan or stewpan, and dry them thoroughly over a gentle fire; then for a dish of moderate size, mix well with them two or three ounces of good butter, cut into small bits, keeping them well stirred. Add a seasoning of salt and cayenne, and serve them very hot, garnished or not at pleasure, with small sippets of fried bread.

758. Cauliflower Boiled.—Choose those that are compact, of a good color, and from five to eight inches in diameter. Strip off the outside leaves, and trim away the tops of the inner leaves; cut off the stalk at the bottom, and pare away the outer, husky skin. Wash them thoroughly, lay them, head downwards, in a pan of cold water and salt, which will draw out all the insects. Boil them open on a drainer, in plenty of boiling water, with a little salt; from ten to fifteen minutes will boil them, and when the stalks are tender they are ready. While boiling, skim the water well. If the heads vary in size, put in the larger ones first. Serve with or without melted butter.

759. Cauliflower Fried.—Select a fine large cauliflower, and lay it in cold water for an hour. Boil it for twenty-five minutes in a saucepan of hot water slightly salted; then divide into small portions, and spread it on a dish to cool. Prepare a batter, made in the proportion of one tablespoonful of flour, and two of milk, to each egg. When the cauliflower is cold, have ready a fryingpan over a clear fire, with a piece of fresh butter in it. When it begins to boil, dip each piece of cauliflower twice into the batter, and fry them a light brown; serve hot.

760. Parsnips Boiled.—Scrape them and cut them in halves, and remove every speckle or blemish; put them into boiling water, and boil them from twenty minutes to an hour, according to their tenderness, they may be tried by thrusting a fork into them, and if that goes easily through, they are sufficiently done. As they require more or less time, according to their size, they should be matched as nearly as possible, so that all may be done at the same time. The water in which they are boiled should be well skimmed. Boiled parsnips are a favorite accompaniment to salt fish, and boiled pork and beef.

761. Parsnips Fried.—Boil the parsnips until they are half done, lift them out, and let them cool; slice them rather thickly, sprinkle them with salt and pepper, and fry them a pale brown in good butter. Serve them with roast meat, and dish them under it.

762. Parsnips Mashed.—Boil parsnips till tender, pare, and then mash them, and warm them in a stewpan with a little cream, a piece of butter, and a seasoning of pepper and salt. They may be thus prepared, either alone or mixed with carrots, turnips, or potatoes; in any guise forming an agreeable and well-flavored dish.

763. Onions Stewed.—After peeling the requisite number of onions, let them lie for some time in water; then put them over the fire in a saucepan of cold water. Pour off the water once, and if the onions are strong, twice during the process of boiling. When done add half a pint of milk, an ounce of butter, and pepper and salt to taste. Boil up and serve.

764. Onions Fried.—Peel the onions and cut them in slices; fry them in lard, butter, or the fat from the stock or other meat which is being cooked; continue stirring them while they are frying until they are of a deep brown color.

765. Onion Sauce.—Peel six large white onions, cut them in half, and lay them in a pan of spring water for a quarter of an hour, then let them boil for a quarter of an hour, and if it is desired to have the sauce very mild pour off the first water, and cover the onions with fresh boiling

water; let them boil till they are tender, drain them well in a hair sieve, lay them on a chopping board, and chop and bruise them; put them into a clean saucepan with some butter and flour, half a teaspoonful of salt, and a little cream or milk; stir the mixture till it boils; then rub it through a sieve, adding cream or milk to bring it to the consistence desired.

766. Stewed Tomatoes.—Loosen the skins with boiling water; peel them, cut them into a sauce-pan. Stew for half an hour; season with salt and pepper, and dress with a tablespoonful of butter, and the same quantity of sugar. Breadcrumbs may be added if desired.

767. Tomatoes Fried.—Cut the tomatoes into slices, a quarter of an inch thick, but do not peel them; season with salt and pepper, dredge on a little flour, and fry in butter. Serve with brown gravy.

768. Tomatoes Forced.—Cut the stem quite close, slice off the tops of eight fine tomatoes, and scoop out the inside; press the pulp through a sieve, and mix with it one ounce of fine crumbs of bread, one of butter broken very small, some pepper or cayenne, and salt. Fill the tomatoes with the mixture, and bake them for ten minutes in a moderate oven; serve them with brown gravy in a dish.

769. Tomatoes Raw.—Wash the tomatoes in cold water; pare and slice them; season with pepper, salt and vinegar. A little sugar may be added, or it may be served with them at table. Keep on ice, until sent to table.

770. To Dress Cucumbers.—Pare cucumbers, and slice them into a dish as thinly as possible; this is best performed by passing the surface dexterously over the edge of a sharp knife. Place them in ice water until ready to serve, then pour off the water and dress with pepper, salt and vinegar. Onions shred finely may be added or not, at pleasure.

771. Cucumber Fried.—Pare and slice young cucumbers and dredge them lightly with pepper and flour; put them into a pan ready heated with butter or clarified dripping, sprinkle salt over them when nearly done, and so on as they are quite tender; lift them out with a slice, drain them well, and place them lightly over any hashed or minced meat.

772. To Cook Egg Plant.—Cut the plant in thin slices, and pile them on the bottom of a dinner plate, putting a layer of salt on each slice. When you have finished this part of the operation, turn a plate over the pile and place a smoothing iron on it; this will press out the strong liquor which they contain. Let them remain under pressure for fifteen minutes; then dip each slice into cold water, dry it, and dip it into a thin batter made of beaten eggs and flour, or into beaten egg and then into cracker dust. Fry in hot lard until well done, and serve hot.

773. Asparagus With Egg.—Beat up two or three eggs, and season with pepper and salt; boil asparagus as usual, cut them into small pieces of the size of peas, and stir them thoroughly into the eggs; melt two ounces of butter in a stewpan, and pouring in the mixture, stir it till it thickens, and serve hot on toast.

774. Asparagus Boiled.—Scrape the stalks quite clean, and then let them soak in salt and water for an hour. Cut them of an equal length, and tie them up in small bundles with tape; boil them gently in three different waters till the stalks are tender, which will be in about half an hour. Dip a delicate toast, about half an inch thick, with the crust cut off, into the asparagus liquor; untie the bundles; lay the asparagus upon the toast, and serve with melted butter in a sauce boat.

775. Celery Sauce.—Cut into small pieces six heads of white celery, with two small onions. Put them into a stewpan with a small piece of butter, and stew them over a slow fire till

quite tender. Add two spoonfuls of flour, half a pint of broth, a wineglassful of cream or milk, and a little salt and pepper. Boil it for a quarter of an hour, and pass it through a fine hair sieve. When celery is not in season, a quarter of a drachm of celery seed, or a few drops of the essence, will impregnate half a pint of sauce with a perceptible flavor of the vegetable. This sauce is intended for boiled turkey, veal, or fowl.

776. Celery Essence.—Soak half an ounce of celery-seed in a gill of brandy. A few drops will flavor a pint of soup or broth, equal to a head of celery.

777. Celery Boiled.—This vegetable is extremely good when dressed like sea-kale, and served on a toast with rich melted butter. Wash it thoroughly, trim off the ends, take off the coarse outer leaves, cut the roots of equal length, tie them in bunches, and boil them in plenty of water with the usual proportion of salt, for twenty or five and twenty minutes.

778. Beet Root.—The red beet root is more nutritive than any other esculent except the potatoe; but it extricates so much gas in the bowels as to prevent it being much used as an article of diet. Beet root contains a large proportion of sugar, and for this purpose large quantities of it are used on the continent. For edible purposes beet root is chiefly used for salads, having an agreeable and cooling taste. It may however be cooked in a variety of ways the same as any other esculent. The juice of red beet root is frequently used for colouring soups and sauces.

779. Beet Root Stewed.—Boil them tender with the skins on, when done rub off the skin, slice them into a stewpan, and dress with vinegar, butter and a little flour.

780. Peas Boiled.—Shell and wash them, then drain them in a cullender, and put them on in boiling water, with a tablespoonful of salt; boil till tender, and serve in a dish in which a piece of butter has been put. A bunch of mint is often boiled with them. The saucepan should not be covered while peas are boiling; and immediately they are done they should be strained from the water, otherwise they will lose their colour.

781. Maccaroni Boiled.—Drop the maccaroni lightly and by degrees into a large pan of fast boiling water, into which a little salt and a piece of butter, the size of a walnut, have been previously thrown. In about three-quarters of an hour it will be sufficiently tender. Pour it into a large cullender, and drain the water well from it. The pipe maccaroni should be suffered to remain entire, and served in that form. The ribbon maccaroni is more quickly boiled than the pipe maccaroni. Drop it gradually into plenty of boiling water, and turn it over occasionally, that it may be equally done. Drain it thoroughly when it is perfectly tender, and serve it quickly, either quite plain, or with a compote of fruit.

782. Maccaroni Pudding.—Mix a quarter of a pound of maccaroni with a pint of good milk, and, when quite tender, sweeten with brown sugar, and add a little more milk, and three eggs well beaten. Bake in a buttered dish in an oven for three-quarters of an hour.

783. Maccaroni Sweet.—Drop gently into a pint and a half of new milk, when it is boiling fast, four ounces of pipe maccaroni; add a few grains of salt, and about a dozen thin strips of lemon or orange rind. Simmer the maccaroni by a gentle fire until it is tolerably tender, then add from two to three ounces of sugar broken small; boil the maccaroni till the pipes are soft, and swollen to their full size; drain and arrange it in a hot dish; stir the milk quickly to the yolks of three eggs well beaten; agitate them briskly over the fire until they thicken, pour them over the maccaroni, and serve it immediately.

784. String Beans Boiled.—String and break them into two or

four, lay them in salt and water, and when the saucepan boils, put them in with a little salt. Dish the moment they are done to preserve their green color, and serve with vinegar. Or, drain off the water, and add half a pint of cream, a little butter and flour, and serve hot.

785. Indications of Wholesome Mushrooms.—Whenever a fungus is pleasant in flavor and odor, it may be considered wholesome; if, on the contrary, it have an offensive smell, a bitter, astringent, or styptic taste, or even if it leave an unpleasant flavor in the mouth, it should not be considered fit for food. The color, figure, and texture of these vegetables do not afford any characters on which we can safely rely; yet it may be remarked that in color the pure yellow, gold color, bluish pale, dark or lustre brown, wine red, or the violet, belong to many that are eatable; whilst the pale or sulphur yellow, bright or blood-red, and the greenish, belong to few but the poisonous. The safe kinds have most frequently a compact, brittle texture; the flesh is white; they grow more readily in open places, such as dry pastures and waste lands, than in places humid or shaded by wood. In general, those should be suspected which grow in caverns and subterranean passages, on animal matter undergoing putrefaction, as well as those whose flesh is soft or watery.

786. To Distinguish Mushrooms from Poisonous Fungi.

i. Sprinkle a little salt on the spongy part or gills of the sample to be tried. If they turn yellow, they are poisonous,—if black, they are wholesome. Allow the salt to act before you decide on the question.

ii. False mushrooms have a warty cap, or else fragments of membrane, adhering to the upper surface, are heavy, and emerge from a vulva or bag; they grow in tufts or clusters in woods, on the stumps of trees, etc., whereas the true mushrooms grow in pastures.

iii. False mushrooms have an astringent, styptic, and disagreeable taste.

iv. When cut they turn blue.

v. They are moist on the surface, and generally,

vi. Of a rose or orange color.

vii. The gills of the true mushroom are of a pinky red, changing to a liver color.

viii. The flesh is white.

ix. The stem is white, solid, and cylindrical.

787. Mushrooms Stewed.—Select button mushrooms, cut off the ends of the talks, pare them neatly, and put them into a basin of water with the juice of a lemon as they are done. When all are prepared, take them from the water with the hands, and put them into a stewpan with a little fresh butter, lemon-juice, white pepper, and salt. Cover the pan close, and let the contents stew gently for twenty minutes or half an hour; then thicken the butter with a dessertspoonful of flour, and add gradually sufficient cream. Season to taste, adding a little pounded mace or grated nutmeg. Let the whole stew gently until the mushrooms are tender; skim off every particle of butter from the surface, and serve.

788. Mushrooms Broiled.—Select the largest-sized mushrooms, make a gridiron hot over a clear fire, and rub the bars with suet to prevent the mushrooms sticking; place them on the gridiron with their stalks upwards; sprinkle them lightly with salt and freely with pepper; serve them on a hot dish with a little cold butter under and over them.

789. To Preserve Eggs.—It has been long known to housewives, that the great secret of preserving eggs fresh is to place the small end downwards, and keep it in that position—other requisites not being neglected, such as to have the eggs perfectly fresh when deposited for keeping, not allowing them to become wet, keeping them cool in warm weather, and avoiding freezing in winter. Take an

inch board of convenient size, say a foot wide, and two and a half feet long, and bore it full of holes, each about an inch and a half in diameter; a board of this size may have five dozen holes bored in it, for as many eggs. Then nail strips of thin board two inches wide round the edges, to serve as a ledge. Boards such as this may now be made to constitute the shelves of a cupboard in a cool cellar. The only precaution necessary is to place the eggs as fast as they are laid in these holes, with the small end downwards, and they will keep for months perfectly fresh. The great advantage of this plan is the perfect ease with which the fresh eggs are packed away, and again obtained when wanted. A carpenter would make such a board for a trifling charge.

790. Other Methods of Preserving Eggs.—Eggs should be new, or not more than twenty-four hours old, when they are stored, otherwise their flavor cannot be relied upon. Eggs may be preserved a short time by putting them in a jar of salt or lime water, with the small end downwards. They may be preserved for several months by greasing them all over with melted mutton suet, and wedging them close together, the small ends downwards in a box of bran. To keep them for winter use, pour a gallon of boiling water on two quarts of quicklime, and half a pound of salt; when cold, mix with it an ounce of cream of tartar. The day following put in the eggs. After the lime has been stirred well into the boiling water, a large portion of it will settle at the bottom of the vessel in which the eggs will remain. Keep them covered with the liquor, and they may be preserved for two years.

791. **Properties of Eggs.**—Eggs are composed almost entirely of albumen; the yolk, besides this substance, contains gelatin, oil, and water, in combination with yellow coloring matter. There is also a small proportion of sulphur mixed with the albumen; it is to this circumstance that silver spoons used in eating eggs are stained of a dark color; and the strong smell of sulphuretted hydrogen, which eggs emit when in a state of putrefaction, is also derived from the same principle. As an article of diet, eggs, when raw, have a gently laxative effect; when taken in this state, they are deemed serviceable in jaundice and obstructions of the liver; when boiled in the usual manner they afford a mild strengthening aliment, not difficult of digestion. Hard boiled eggs remain long on the stomach, and are apt to constipate the bowels; they are rendered easier of digestion when used with vinegar as a condiment. The eggs of granivorous fowls are considered the best; those of the common hen and the Guinea hen are the most esteemed. The eggs of ducks, geese, and all the water fowls, contain a greater proportion of oil, and are more strongly flavored; they are only suited for powerful stomachs. An egg boiled until the greater part of the white is slightly coagulated, without depriving the yolk of its fluidity, and taken with a due proportion of bread, is an excellent article of diet for a child, or a person in a state of convalescence; but when the stomach is deranged, eggs, in whatever state, are apt to increase the disorder. A fresh egg contains about the same amount of nourishment as an ounce and a half of meat, and an ounce of wheaten bread.

792. **Egg-sauce.**—Boil a couple of eggs hard, and when quite cold, mince the yolks and whites separately; mix them well, put them into a hot tureen, and pour to them a quarter of a pint of boiling melted butter; stir, and serve immediately.

793. **Eggs Boiled.**—The boiling of eggs demands a certain degree of care. If they are brought from a cold place, and suddenly plunged into boiling water, they will frequently break, and a large portion will often escape from the shell. When this

accident does occur, a little salt put into the water will prevent the further escape of the egg from the fracture. In winter, eggs should be held for an instant over the steam from the saucepan before they are laid in. When they are introdueed into the saueepan they should not be dropped in from the hand, but gently deposited by the aid of a spoon. The time required for boiling eggs is regulated by the degree of firmness desired. Three minutes will boil them sufficiently for persons who like the whites in a partially liquid state; four minutes will harden the whites only, and leave the yolks still liquid, and five minutes and upwards will render both the yolk and white hard. Eggs are frequently underdressed or over-dressed through forgetfulness or miscalculation. A certain way to avoid this is to put the eggs into *cold water*, and by the time the water boils, the eggs will be cooked to a medium degree. They may continue boiling beyond this point to any stage of hardness desired.

794. Eggs Fried.—Have ready a fryingpan containing hot fat, drop the eggs in separately, let them fry for one minute, then drop some more hot fat over them; three minutes will cook them. They do not require to be turned.

795. Eggs Poached.—Have water gently simmering in a stewpan, place in carefully each egg, previously broken, with a cup, without disturbing the yolk; when the white is coagulated, which it will be in fourteen minutes, the eggs will be done. They may be served in various ways; on bread slightly toasted or with spinach. In these cases, the bread should be eut into squares, and an egg placed on each square. The spinach, after being boiled, must be pressed, and cut into triangular pieces; upon one of each an egg must be placed. Serve with melted butter.

796. Egg Forced.—Boil six eggs hard, remove the shells, but leave the eggs whole; eover them with a forcemeat made with seraped ham, pounded anchovy, pounded veal and bacon fat, well mixed together and highly seasoned; brush them with the yolk of egg and dredge them with bread-crumbs or vermicelli; fry them a pale gold color, or put them in an oven for a quarter of an hour, and serve them up with gravy in the dish.

797. Egg Balls.—Pound a sufficient quantity of the yolks of hard-boiled eggs in a mortar, with as much raw yolk and flour as will bind the composition. Add salt and make up in the form of balls the size of a marble. Put at least two dozen to a tureen of soup.

798. Scrambled Eggs.—Break your eggs into a bowl, and have ready the fryingpan, into which put a piece of butter the size of a hulled walnut. When hot, stir in the eggs, adding salt and pepper, and stir constantly for three or four minutes. Turn out on a warm plate and serve.

799. Omelette.—A culinary preparation of French origin somewhat resembling a pan-eake or fritter. As omelettes are quickly and easily made, and afford an agreeable addition to a repast, the following general observations respecting them will be found worthy of notice:—The pan used for frying should be quite small, for if the omelette be composed of four or five eggs only, and then put into a large pan, it will neeessarily spread over it and be thin; the only partial remedy, when the pan is not of the proper size, is, to raise the handle of it high, and to keep the opposite end close down upon the fire, which will confine the eggs into a smaller space. No gravy should be poured into the dish with the omelette, for if it be properly done it will require none. Should the slight rawness, which is sometimes found in the middle of the inside, when the omelette is made the French way, be objected to, a heated shovel or a salamander may be held over it for an instant before it is folded on the

dish. Omelettes may be made in a variety of ways as follows:—

800. Ordinary Omelette.—Beat the yolks and whites of four eggs together with a tablespoonful of milk and a little salt and pepper; put two ounces of butter into a fryingpan, and let it remain until it begins to brown; then pour in the batter, and leave it undisturbed for a minute; turn up the edges of the omelette gently from the bottom of the pan with a fork; shake it to prevent it burning at the bottom, and fry it till of a light brown. It will not take more than five minutes frying.

801. Sweet Omelette.—This is nothing more than the ordinary omelette, upon which powdered sugar is put before it is turned; when it is turned, powder the outside also with white sugar, and press upon it a red hot iron; the iron should be about half an inch square, and pressed in streaks from one end to the other.

802. Friar's Omelette.—Boil a dozen apples, as for sauce; stir in a quarter of a pound of butter, and a quarter of a pound of powdered loaf sugar; when cold, add four eggs, well beaten; put it into a baking dish thickly strewed over with crumbs of bread, so as to adhere to the bottom and sides; then put in the apple mixture; strew crumbs of bread over the top; when baked, turn it out, and grate loaf sugar over it.

803. Omelette Soufflee.—Put into a stewpan an ounce of butter; when melted, add two tablespoonfuls of flour; stir them well over the fire so that the flour be thoroughly done, but not colored; add by degrees a wineglassful of boiling cream, and four times the quantity of boiling milk; work it quite smooth, take it off the fire, add four yolks of eggs, sugar to taste, a few grains of salt, and a tablespoonful of orange-flower water; whip up strongly the whites of eight eggs, mix them lightly in the batter, put the whole into a soufflé dish, and bake for an hour.

804. Melted Butter.—Although this is a culinary preparation which is frequently required, and extremely simple to compound, yet it is rarely sent to table as it should be. It is either too thick or too thin, and not unfrequently filled with lumps of flour, or oiled. All this is the result of carelessness and inattention. The excellence of melted butter greatly depends upon the pains taken to blend it with the flour before it is put over the fire, the best plan of doing which is to rub them together with a knife upon a plate. When well mixed, add two tablespoonfuls of hot water, or the same quantity of milk; put it into a small saucepan, shaking it in a uniform direction until it boils, and not leaving it for an instant; it must boil for a minute to take off the rawness, and if made of fresh butter, a little salt should be added. It should be borne in mind that if the mixture is set on the hot coals, or over the fire, it will be oily; if the butter and flour be not well mixed, it will be lumpy; and if too much water be employed it will be poor and thin.

805. Rich Melted Butter.—Mix to a very smooth batter a dessertspoonful of flour, half a saltspoonful of salt, and half a pint of cold water; put these into a very clean saucepan, with from four to six ounces of well-flavored butter, cut into slices, shake the sauce well round, almost without cessation, until the ingredients are perfectly blended and the mixture is on the point of boiling; let it simmer for two or three minutes, and it will then be ready for use.

806. Ordinary Melted Butter.—Put two large teaspoonfuls of flour with a litle salt into a basin, mix with them very gradually and smoothly half a pint of cold water; put these into a small clean saucepan, and stir them constantly over a clear fire until they have boiled for two or three minutes; then add three ounces of butter cut small: keep the sauce continually stirred until the butter is entirely dis-

solved; give the whole a minute's boil, and serve it quickly.

807. White Melted Butter.—Thicken half a pint of new milk with two teaspoonfuls of flour, and stir into it by degrees after it has boiled, two ounces of fresh butter cut small; stir the sauce continually until this is entirely dissolved; then serve.

808. Brown Melted Butter.—Put three ounces of fresh butter into a frying-pan, and toss it round over the fire until it becomes brown; then dredge some flour over it, which has been previously browned by placing it either in the oven or before the fire; stir the mixture round with a spoon until it boils.

809. Melted Butter Without Flour.—Put three tablespoonfuls of water into a small saucepan, and when it boils, add four ounces of fresh butter; as soon as this is quite dissolved, take the saucepan from the fire, and shake it round until the sauce becomes thick and smooth. It must not be allowed to boil after the butter is added.

810. French Melted Butter.—Pour half a pint of good, but not very thick boiling melted butter to the well-beaten yolks of two or three fresh eggs, and stir them briskly as it is added; put the sauce again into the saucepan, and shake it high over the fire for an instant, but do not allow it to boil, or it will curdle. Add a little lemon-juice or vinegar, and serve it immediately. The melted butter which is not used need not be thrown away or wasted; it will answer the purpose excellently for mashed potatoes on the following day.

811. **Rice Boiled.**—Rice may be boiled in a variety of ways. Wash a cupful of rice in salt and water, and in two or three fresh waters; then set it over the fire in plenty of boiling water, and boil it (uncovered) as fast as possible, ten or fifteen minutes will do, when it will be tender. Drain off the water, and put the rice into a cullender before the fire to dry, lightly pricking it with a fork occasionally. Each grain will be dry and separate, and the whole beautifully white. Keep it hot till used, if possible before the fire, but do not cover it.

812. Another Way.—Pick the rice carefully, and soak it in cold water for a quarter of an hour; strain, and put it into boiling water, which should rise three inches above the rice. Cover, and boil it for six minutes, skimming when necessary. Add a gill of sweetened milk for each pound of rice, and in two minutes more remove the saucepan from the fire; strain without squeezing; return it dry into the pot, and place it over a slow fire; pour over it half an ounce of melted butter mixed with a tablespoonful of the hot water in which the rice was boiled, and in six minutes it will be ready for table.

813. Our Way.—Take out the unhusked grains, wash the rice in several waters, and put it into a large quantity of cold water; bring it gently to boil, keeping it uncovered, and boil it softly for fifteen minutes, when it will be perfectly tender, and every grain will remain distinct. Throw it into a capacious cullender, and let it drain for ten minutes near the fire; should it not then appear quite dry, turn it into a dish, and set it for a short time into a moderately heated oven, or let it steam in a saucepan near the fire. It should not be stirred except just at first, to prevent its lumping while it is still quite hard, nor should it be touched with either fork or spoon; the stewpan may be shaken occasionally, should the rice seem to require it, and it should be thrown lightly from the cullender upon the dish. A couple of minutes before it is done, throw in some salt, and from the time of its beginning to boil remove the scum as it rises.

814. **Rice Balls.**—To a quarter of a pound of rice add a pint and a half of milk, and boil it with a little cinnamon, sugar, and lemon-peel, until it is quite tender; allow it to remain till cold, and then make it into balls.

Beat up an egg, and roll the balls in it, and afterwards in grated bread crumbs or cracker dust. Fry them in lard, drain them on a piece of paper, and serve them up strewed with sifted sugar.

815. Rice Souffle.—Boil two ounces of rice in milk, add the yolks of two eggs, a little sugar, and some orange-peel; then boil it again, and make a wall with it around the edge of the dish. Have ready some apples pared, and the cores scooped out; stew these apples, filling the apertures with sugar. Fill the dish with the apples, and cover them with the whites of eggs, beaten to a froth, with white sifted sugar. Harden it in a cool oven.

816. Rice Jelly.—Boil half a pound of rice, and a small piece of cinnamon, in two quarts of water for an hour. Pour into moulds, or small cups, and when cold turn out on a dish, and serve with a spoonful of currant jelly on each. It is eaten with cream and sugar.

817. Hints on Pickling.—Do not keep pickles in common earthenware, as the glazing contains lead, and combines with the vinegar. Vinegar for pickling should be sharp, though not the sharpest kind, as it injures the pickles. If you use copper, bell-metal, or brass vessels, for pickling, never allow the vinegar to cool in them, as it then is poisonous. Add a teaspoonful of alum, and a teacupful of salt to each three gallons of vinegar, and tie up a bag, with pepper, ginger root, spices of all the different sorts in it, and you have vinegar prepared for any kind of pickling. Keep pickles only in wood or stone ware. Anything that has held grease will spoil pickles. Stir pickles occasionally, and if there are soft ones take them out, and scald the vinegar, and pour it hot over the pickles. Keep enough vinegar to cover them well. If it is weak, take fresh vinegar and pour on hot. Do not boil vinegar or spice above five minutes.

818. Cauliflower Pickled.—Choose the whitest and firmest cauliflowers. Divide the flower into small pieces, and lay them in a brine of salt and water for twenty-four hours. Take them out of the brine and put them into a saucepan of water. Boil three minutes; drain them and lay them on coarse cloths in the sun until all the moisture is evaporated. Put them into jars and pour over them, cold, a pickle of vinegar in which mace, long pepper, white peppercorns, and a few grains of allspice, have been simmered. Tie the jar down close, and add vinegar from time to time, as it becomes absorbed.

819. Tomatoes Pickled.—For this purpose the small round sort are the best, and each one should be pricked with a fork, to allow some of the juice to exude. Put them into a deep earthen vessel, sprinkle salt between every layer, and leave them for three days covered; then wash off the salt, and cover them with a pickle of cold vinegar, to which add the juice, mixed with a handful of mustard-seed, and an ounce of each of cloves and white pepper for every peck of tomatoes.

820. Red Cabbage Pickled.—Choose two middling-sized, well colored, and firm cabbages, shred them very finely, first pulling off the outside leaves; mix with them half a pound of salt, tie them up in a thin cloth, and let them hang for twelve hours, then boil a quart of vinegar with an ounce of ginger, half an ounce of black and Jamaica pepper, and a quarter of an ounce of cloves. Put the cabbage into jars, and pour the vinegar over it when cold.

821. Pickled Beans.—Lay them in salt and water for nine days, then add a little vinegar, and boil them in the liquor; when they become green, drain, wipe dry, and put them into jars. Boil some vinegar, ginger, mace, cloves, pepper, and mustard-seed, all bruised, and while hot pour it over the beans. Cover close when cold.

822. Pickled Cucumbers.—Choose very small cucumbers, put them in strong brine for eight or ten days, turning them occasionally; then

drain, and put them into cold fresh water for forty-eight hours, changing the water two or three times. Pick out the soft ones, put the others into a jar in which vine leaves or cabbage leaves are laid, and pour scalding vinegar on them; add more leaves, and keep them covered by the fire. On the following day strain off the vinegar, boil it up, and pour it hot over the cucumbers, again putting fresh leaves to them above and below. When the color becomes tolerably good, boil up the vinegar once more with a quarter an ounce of white pepper, the same of sliced ginger, half a drachm of cloves, half a cup of sugar, and half of a bruised nutmeg. Let these boil for a few minutes, and when cold, pour it over the cucumbers, which have been previously put into bottles or jars. Tie the bottles down, and put them by in a dry place.

823. Beet Root Pickled.—Wash it perfectly clean, but do not cut away any of the fibres; boil in a large quantity of water with a little salt, for half an hour; if the skin will come off easily it is done enough. Lay it upon a cloth, and with a coarse one rub off the skin. Cut it into slices, put it into a jar, and pour over it a hot pickle of cider vinegar, a little ginger, pepper, and horseradish sliced. Cover close.

824. Onions Pickled.—Select the small round sort; peel them, and steep them in strong salt and water for four days, changing the water two or three times; wipe them perfectly dry, put them into milk which is scalding hot, and let them lie until the milk becomes cold; then drain them and dry each separately in a cloth; after which put them into jars; pour over them as much white wine vinegar which has been boiled with as much white pepper as will cover them completely; tie them over first with wet bladder and then with leather, and keep the jars in a dry place for use.

825. To Pickle Walnuts.—The walnuts for this pickle must be gathered while a pin can pierce them easily, for when once the shell can be felt, they have ceased to be in a proper state for it. Make sufficient brine to cover them well, with six ounces of salt to the quart of water; take off the scum, which will rise to the surface as the salt dissolves, throw in the walnuts, and stir them night and morning; change the brine every three days, and if they are wanted for immediate eating, leave them in it for twelve days, otherwise, drain them from it in nine, spread them on dishes, and let them remain exposed to the air until they become black; this will be in twelve hours or less. Make a pickle for them, with something more than half a gallon of vinegar to the hundred, a teaspoonful of salt, two ounces of black pepper, three of bruised ginger, a drachm of mace, and from a quarter to half an ounce of cloves (of which some may be stuck into three or four small onions), and four ounces of mustard-seed. Boil the whole of these together for about five minutes; have the walnuts ready in a stone jar or jars, and pour it on them as it is taken from the fire. When the pickle is quite cold, cover the jar securely, and store it in a dry place. Keep the walnuts always well covered with vinegar, and boil that which is added to them as directed above.

826. Melon Pickle.—Gather one or two well flavored melons within three or four days of their becoming fully ripe; first pare off the outer rind, clear them from the seeds, and cut the fruit into slices of about half an inch thick; lay them in good vinegar, and let them remain in it for ten days; then cover them with cold fresh vinegar, and simmer them very gently until they are tender. Lift them on to a sieve reversed, to drain, and when they are quite cold insert a couple of cloves into each slice; lay them into a jar, and cover them well with cold syrup, let it drain from them a little; then put them into jars in which they are to be stored, and cover them again

thoroughly with good vinegar which has been boiled for an instant and left to become quite cold before it is added to them. This pickle is intended to be served with roast meats, particularly mutton, venison, and hare, instead of currant jelly; it is also very good with stewed meats.

827. Pickled Eggs.—If the following pickle were generally known it would be more generally used. The eggs should be boiled hard (say ten minutes), and then divested of their shells; when *quite cold* put them in jars, and pour over them vinegar (sufficient to quite *cover* them), in which has been previously boiled the usual spices for pickling; tie the jars down tight with bladder, and keep them till they begin to change color.

828. Pickles Mixed.—Prepare a variety of vegetables, as cauliflower, cucumber, French beans, gherkins, etc., by cutting them in pieces and letting them lie in salt and water for two or three days; then make the pickle in the following manner:—Boil the quantity of vinegar required with peppercorns, mustard-seed, a small quantity of mace, a few cayenne pods, a little ginger, and half a pound of flour and mustard mixed smoothly in a basin, to be put in while boiling; place these altogether in a large stone jar.

829. The Art of Mixing Salads.—This is a point of proficiency which it is easy to attain with care. The main point is to incorporate the several articles required for the sauce, and to serve up at table as fresh as possible. The herbs should be morning-gathered, and they will be much refreshed by lying an hour or two in spring water, careful picking, and washing, and drying in a cloth, in proportion as each herb requires attention. The sauce may be thus prepared:—Boil two eggs for ten or twelve minutes, and then put them in cold water for a few minutes, so that the yolks may become quite cold and hard. Rub them fine with a wooden or silver spoon, and mix them with a tablespoonful of cream, and then add two tablespoonfuls of fine flask oil or melted butter; mix, and add by degrees, a teaspoonful of salt, the same quantity of mustard, and about half a teaspoonful of cayenne pepper. Mix till smooth, and incorporate with the other ingredients three or four tablespoonfuls of vinegar; then pour this sauce down the side of the salad-bowl, but do not stir up the salad till wanted to be eaten. A little sugar improves most salads, and it may be dissolved in the vinegar before it is added. Garnish the top of the salad with the white of the eggs cut in slices; or these may be arranged in such a manner as to be ornamental on the table. Some persons may fancy they are able to prepare a salad without previous instruction, but, like everything else, a little knowledge, in this case, may not be thrown away.

830. Chicken Salad.—Take the white meat of cold boiled chicken or turkey, and mince it fine; or, where economy is an object, equal quantities of cold boiled veal and chicken may be used. Then take half as much celery as you have meat, cut it in small pieces, put it in ice water to crisp, and prepare a dressing as directed above (829). The celery should now be dried on a napkin, and mixed with the meat; then beat up an egg, add it to the dressing as prepared, and mix all thoroughly with a silver spoon or fork. Garnish.

831. Walnut Catsup.—Take two sieves of green walnut shells, put them into a tub, mix them up well with common salt, from two to three pounds, let them stand for six days, frequently beating and mashing them: by this time the shells become soft and pulpy, then by banking the mass up on one side of the tub, and at the same time raising the tub on that side, the liquor will drain clear off to the other; then take that liquor out: the mashing and banking-up may be repeated as often as liquor is found. The quantity will be about six quarts.

When done, let it be simmered in an iron boiler as long as any scum arises; then bruise a quarter of a pound of ginger, a quarter of a pound of allspice, and two ounces of long pepper, two ounces of cloves. Let it slowly boil for half an hour with the above ingredients; when bottled, let an equal quantity of the spice go into each bottle; when corked let the bottles be filled quite up; cork them tight, seal them over, and put them into a cool and dry place.

832. **Tomato Catsup.**—Pour boiling water over a peck of tomatoes, and peel them. Put them into a porcelain lined kettle and boil them until the pulp is all dissolved. Strain and press them through a hair sieve, then return them to the kettle and add one ounce of salt, a teaspoonful of cayenne pepper, and a tablespoonful each of cloves and allspice. Boil for three hours; let it stand till cold, then put into pint bottles, dipping the corks and necks of the bottles into melted sealing wax. Keep in a dry cool place.

833. **Worcestershire Sauce.**—Below will be found directions for preparing this far-famed sauce:—White or cider vinegar, one gallon; Canton soy and molasses, of each one pint; walnut catsup, half a pint; table salt four ounces; powdered capsicum and allspice, of each one ounce; coriander seed, cloves, and mace, of each half an ounce; cinnamon, six drachms; assafœtida two drachms, in four ounces of rum. Put into a stone jug, cork, and set aside for a week; pour off and bottle for use.

834. **Sweet Sauce for Puddings.**—Put half a pint of water into a saucepan; let it boil; add a little flour to thicken it, and an ounce of butter, a wine-glassful of brandy or sherry, and sweeten to taste with lump sugar. Flavor to taste and serve in a tureen or butter-boat.

835. **Teetotal Pudding Sauce** is made with melted butter, to which a little cream has been added, sweetened to taste, and flavored with any of the favorite spices.

836. **White Sauce for Poultry or Boiled Veal.**—Mix three tablespoonfuls of flour in one pint of milk or cream, with a little salt, pepper, and nutmeg, and a slice or two of lemon; keep stirring till it boils, then take out the lemon, pour it over the fowl, or veal, and garnish with slices of lemon. This is also excellent to warm up poultry or veal in.

837. **Sauce for Wild Fowls.**—Simmer a tea-cup full of port wine, the same quantity of good gravy, a little shalot, pepper, salt, nutmeg, and mace, for ten minutes; put in a bit of butter and flour, give it all one boil, and pour it through the birds.

838. **Mint Sauce** should always be served with roast lamb, and is made thus:—Take nine or ten stalks of green mint, chop it very small, a pint of common vinegar, and three tablespoonfuls of moist sugar. It will be all the better if made a day or two before it is used.

839. **Oyster Sauce.**—Open a pint of oysters into a basin, wash them from their liquor, and put them into another basin. Pour the liquor, as soon as settled into a saucepan, thicken with flour and butter, and boil three or four minutes. Put in a spoonful of cream, and then the oysters. Shake them over the fire till quite hot, but do not let them boil. Squeeze in the juice of half a lemon, and serve.

840. **White Sauce** is made thus:—One pint of milk boiled in a saucepan; add a little flour to thicken it, a piece of butter, and a table-spoonful of mushroom catsup.

841. **Cranberry Sauce.**—Pick and wash a quart of cranberries, be sure and reject all the dark colored ones, stew them slowly for an hour, stirring often. When done sweeten with plenty of sugar, rub them through a cullender and pour them into a glass dish or mould, that has been dipped into cold water. When firm, turn into a white dish and serve.

842. Apple Sauce.—Peel, core, and slice apples according to quantity required; put them in a stone jar or saucepan with a little water; when done beat them to a pulp, add a small piece of fresh butter, and sweeten sufficiently with white or brown sugar.

843. Cleansing and Preparing Currants.—The best method of cleansing currants is to put them into a common cullender, over a pan with sufficient water to cover them, rub them well between the hands in the water to separate the knobs, and stir them about. The small sand and gravel will then fall through the holes and sink to the bottom of the pan. After being washed clean, and the water drained from them, the large stones can then be easily picked out by sorting them over on a large dish. Currants, previous to putting them into cakes or puddings, should be plumped. This is done by pouring boiling water upon them, and laying them on a sieve or cloth before the fire to dry. If used in a damp state they will make cakes or puddings heavy. It is an excellent plan to dust dry flour on them just before using.

844. Washing Pudding Cloths.—Pudding-cloths should be washed as soon as possible after the puddings are taken out of them. They should be washed in clean warm water, without soap, rinsed and thoroughly dried before being folded and put in the kitchen drawer, otherwise they will give a musty smell to the puddings that are next boiled in them. The paste-brush, egg-whisk, and sieves, must also be washed, first in cold and then in warm water, and put away clean and dry, or they will spoil whatever you use them for afterwards. All things through which eggs are strained, should be washed, first in cold and then in hot water.

845. To Clarify Butter.—Cut the butter in slices; put it into a jar, which set in a pan of boiling water until it melts. Skim it, take it out, and when it has cooled a little, pour it gently off, keeping back the curdy sediment.

846. Flavoring Extracts.—As the charm of many of the dishes of which we partake resides in the flavor, it is important that the extracts used should be of the best quality. But how to determine this is the question? In this, as in almost every other case, it is economy to pay a fair price for an honestly manufactured article; and as the names of the several manufacturers will be found upon their preparations, a little experience will enable you to judge of their respective merits. When possible, flavorings should be added to preparations after they have been removed from the fire, as the strength is driven off by heat. The quantity used must be determined by the taste. Below will be found a list of the most important extracts used in cookery.

Vanilla,	Strawberry,	Nectarine,
Lemon,	Ginger,	Green Gage,
Cloves,	Almond,	Orange,
Allspice,	Celery,	Apricot,
Peach,	Mace,	Pineapple,
Cinnamon,	Raspberry,	Rose.
Banana,	Nutmeg,	

847. Coloring for Sauces, Soups, Gravies, etc.—The following is an approved coloring for soups and gravies generally:—To a gill of water add four ounces and a half of lump sugar, put it into a small pot, set it over a gentle fire, and stir with a wooden spoon until a light brown is produced. Then add a pint of water, boil and skim it, and bottle off for use when cold. As much of this may be added to the soup or gravy as will give it the desired color.

848. Snow as a Substitute for Eggs.—It is not generally known that *snow* is a fine substitute for *eggs* in both puddings and pancakes. Two table-spoonfuls may be taken as the equivalent of an egg. Take it from a

clean spot, and the sooner it is used, after being taken in-doors the better. It is to be beaten in just as the eggs would have been, and it should be handled as little as possible.

849. Plum Pudding No. 1.—Take a pound of fresh beef-suet, very finely minced, a pound of raisins stoned and chopped, a pound of currants cleaned and dried, a pound of flour, the grated peel of a lemon, half of a nutmeg, six well-beaten eggs, an ounce of candied orange-peel and half an ounce of candied lemon-peel minced, half a pound of brown sugar, a wineglassful of brandy and a teacupful of cream. Mix all the ingredients well with the flour. Boil the pudding in a cloth, put it into a pot of boiling water, and keep it boiling for seven hours. Before serving, strew grated loaf sugar over it.

850. Plum Pudding No. 2.—Take a pound of the best raisins stoned, and a pound of currants; chop very small a pound of fresh beef-suet; mix the whole well together with a pound of sifted flour, and the same weight of crumb of bread soaked in milk, squeeze it dry, and stir with a spoon until reduced to a mash, before it is mixed with the flour. Cut into small pieces two ounces each of preserved citron, orange, and lemon-peel, and add a quarter of an ounce of mixed spice; put a quarter of a pound of moist sugar into a basin with eight eggs, well beaten; stir this with the pudding, and make it of a proper consistence with milk. Pour a gill of brandy over the fruit and spice, mixed together in a basin, and allow it to stand for three or four hours before the pudding is made, stirring occasionally. Tie it in a cloth, and boil it for five hours. Serve with any sauce desired.

851. A Little One For A Cent.—Take half a pound of grated bread, a quarter of a pound of finely-minced suet, a tablespoonful of flour, half a pound of currants, two ounces of brown sugar, and a wineglassful of brandy; mix all together with a sufficient quantity of milk to make it into a stiff batter; boil it in a cloth for four hours.

852. Swiss Pudding.—Butter a deep dish or pan, and put into it a layer of sliced apples; sprinkle with sugar, and distribute over it three or four bitts of butter the size of a pea; then put in a layer of bread crumbs; then more apples, sugar and butter; and so on till the dish is filled. Finish with a layer of crumbs, and bake in a moderate oven for three-quarters of an hour. The apples should be sliced thin, and a little ground cinnamon added to each layer improves it. Serve warm in the dish or pan, and eat it with cream and sugar.

853. College Pudding.—Mix six ounces of grated bread with the same quantity of currants well cleaned and picked, the same of beef-suet finely shred, the same of apples chopped small, and the same of loaf sugar; add six eggs, half of a nutmeg grated, a little salt, the rind of a lemon grated, and a tablespoonful each of candied citron, orange, and lemon-peel cut thin. Mix them thoroughly together, put the whole into a basin, cover it closely with a floured cloth, and boil it for three hours. Serve it with sweet sauce.

854. Suet Pudding.—To a pound of beef-suet chopped very fine, add six tablespoonfuls of flour, a teaspoonful of grated ginger, and a teaspoonful of salt. Gradually mix with these ingredients a quart of milk, and four eggs well beaten. Boil the whole three hours in a buttered basin, or two hours and a half in a cloth well floured.

855. Tapioca Pudding.—Soak two tablespoonfuls of tapioca in a quart of cold milk for four hours; mix with it two eggs well beaten, two ounces of sugar, and two teaspoonfuls of extract of lemon; let it boil, stirring it all the time, to prevent the eggs from turning the milk. Bake it in a dish for half an hour; one egg is enough for common purposes.

856. Cabinet Pudding.—Over six sponge cakes pour sufficient sherry, or white wine, to soak them thoroughly.

Beat up six new-laid eggs with a quart of new milk, and a little nutmeg, and sweeten with white sugar. Put the cakes into the custard without beating them together, and turn the whole into a mould previously buttered; tie a paper over the top, and steam the pudding for an hour. *For Sauce to the Pudding.*—Beat up the yolks of two eggs, two tablespoonfuls of pounded white sugar, and two wineglassfuls of white wine; mix well together, simmer gently, stirring all the time, and serve hot. This, also, makes a delicious sweet, which may be eaten when cold, like custard.

857. Quaking Pudding.—Scald a quart of cream; when almost cold, put to it four eggs well beaten, and a spoonful and a half of flour, with nutmeg and sugar. Tie it close in a buttered cloth, boil it for an hour and turn it out carefully without cracking it. Serve it with melted butter, a little wine and sugar; or it may be eaten with cream and sugar.

858. Cake Pudding.—Take stale cake of any kind, and break it into a mould, or dish previously buttered. Beat up six eggs, add them to a quart of milk, flavor to taste, and pour it over the cake. Place the pudding dish in a pan of hot water and boil it an hour. Turn out and serve with sauce. Light and dark colored cake may be arranged in alternate layers and treated as above.

859. Miss Acton's Christmas Pudding.—To three ounces of flour, and the same weight of fine, lightly-grated bread crumbs, add six of beef kidney-suet, chopped small, six of raisins weighed after they are stoned, six of well-cleaned currants, four ounces of minced apples, five of sugar, two of candied orange-rind, half a teaspoonful of nutmeg mixed with pounded mace, a very little salt, a small glass of brandy, and three whole eggs. Mix and beat these ingredients well together, tie them tightly in a thickly-floured cloth, and boil them for three hours and a half.

860. Rolly-Poly Pudding.—This well-known pudding is made by rolling out a thin layer of suet or butter paste as for puddings, upon which either a preserve, a jam, or fruit of any kind may be evenly spread, leaving an inch bare at the edges all round except on that next the cook, and then the whole is rolled up into a long pudding, closed at the ends by pinching the paste, and enveloped in the same way in a cloth, which is tied with a string at each end, and boiled one hour.

861. Pumpkin Pudding.—Take eight eggs, a pint of stewed pumpkin, a quarter of a pound of butter, a quarter of a pound of sugar, two tablespoonfuls of brandy, a teacupful of cream, a teaspoonful of cinnamon, and a teaspoonful of nutmeg. Stew the pumpkin in a small quantity of water, mash it very fine, add the butter, and let it stand to cool. Then beat up the eggs, and when the pumpkin is cool, add them and the other ingredients. Line a pudding basin with paste, pour in the pumpkin, and bake in a moderately hot oven.

862. Apple Pudding.—Eight ounces of apples when grated; six or eight ounces of sugar; six ounces of butter; the juice and rind of a lemon, grated; five eggs, leaving out two whites, the eggs to be well beaten, and the ingredients well mixed together; put a paste round the dish, and bake it.

863. Fig Pudding.—Take three-quarters of a pound of grated bread, half a pound of figs, six ounces of suet, six ounces of moist sugar, a teacupful of milk, and a little grated nutmeg. Chop the figs and suet very fine. Mix the bread and suet first, then the figs, sugar and nutmeg, one egg beaten well, and lastly, the milk. Boil in a mould for four hours. Serve with sweet sauce.

864. Rice Pudding without Eggs.—Wash and pick a teacupful of rice, put it into a dish or pan, and add a quart of good milk, four or five tablespoonfuls of sugar, a saltspoonful of salt, half an ounce of melted butter,

and cinnamon or nutmeg to taste. Bake in a moderate oven for two hours.

865. Rice Pudding with Eggs.—Throw six ounces of rice into plenty of cold water, and boil it gently from eight to ten minutes; drain it well in a sieve or strainer, and put it into a saucepan with a quart of milk; let it stew until tender, sweeten it with three ounces of sugar, stir to it gradually three eggs, beaten and strained; add grated nutmeg, lemon-rind, or cinnamon, and bake it for an hour in a gentle oven.

866. Vermicelli Pudding.—Boil a pint of milk with lemon-peel and cinnamon, sweeten with loaf sugar; strain through a sieve, and add a quarter of a pound of vermicelli; boil ten minutes, then put in the yolks of five, and the whites of three eggs; mix well together, and steam it one hour and a quarter.

867. Lemon Pudding.—Beat the yolks of four eggs thoroughly, add four ounces of white sugar; peel a lemon and beat it into a paste with the juice, and mix all together with four ounces of warmed butter. Line a shallow dish with crust, and put the mixture into it. Bake it in a moderately heated oven.

868. Black Pudding.—Take one quart of bread crumbs; a quarter of a pound of currants; a quarter of a pound of raisins; one teaspoonful of ground cinnamon; half a teaspoonful each of mace and cloves; three-quarters of a pound of dark brown sugar; three eggs; half a pound of butter; one pint of milk; a teaspoonful of soda; and a teaspoonful and a half of cream of tartar. Mix as for other puddings, and if the batter is not stiff enough, a little flour may be added. Pour into a pudding dish or pan—a pound-cake pan is an excellent substitute—place it in boiling water, and allow it to boil for four hours. Serve with sauce. We can recommend this as a remarkably light and rich pudding.

869. Directions for Cake-making.—Before proceeding to the actual operation of cake-making, the various materials which are to enter into their composition undergo a certain amount of preparation; for this purpose every article should be in readiness about an hour previously to its being wanted, and placed before the fire or upon a stove, that it may become gently heated; without these precautions it is impossible to produce a good cake. The currants, raisins, etc., should be carefully picked and washed, and dried in a cloth set before the fire. The eggs should be well beaten—the yolks and whites separately. A large tin basin answers best for this purpose, as the yolks or the butter can be heated in this, occasionally over the fire or in hot water, while the whisking is going on, which materially assists the process. It is a good test of beaten eggs, when they are sufficiently thick to carry the drop that falls from the whisk. If eggs are not properly managed at first, it is difficult to raise them to a cream afterwards. After being beaten they should always be strained. If the eggs are put into cold water some time before breaking them, they will beat to a finer froth, and in a shorter time. In summer, put them into water with a little ice. It is better to beat them in a cool place than a hot room. The sugar should be crushed with the rolling pin to a powder, on a clean bread-board, and sifted through a fine hair sieve. The flour should be of good quality, dry, and sifted. The butter should be cut in small pieces, well washed, and drained before using it, this will conduce to the lightness of the cake; and it must be well creamed, for if not, it will render the cake heavy. Caraway seed, ginger and spices are added in the form of a fine powder, or made into an essence by dissolving them in spirits of wine. The milk and water should be made lukewarm. When all these are ready, and have stood a sufficient time, they

are put into buttered pans one after another in the proper order, and well beaten together; this should be done for at least half an hour, the lightness of the eake principally depending upon the ingredients being thoroughly intermingled. In *plum cakes*, as well as in some other varieties, a *little yeast* may be added after the butter, the mass allowed to rise a little, and then again well kneaded. In mixing eakes, the hands should be brought into eontact with the materials as little as possible, partieularly in warm weather: it is preferable to use a wooden spatula or spoon. To butter cake pans, the butter should be elarified, and when nearly eold, laid on smoothly with a small brush kept for that purpose. The heat of the oven is of great importance in baking cakes, espeeially those that are large. It should have rather a quick temperature, or the cake will not rise properly, and will turn out heavy. The heat ought to be kept up equally throughout, by adding fresh fuel oceasionally till the eake is drawn; but, above all, attention must be given till it is properly raised. To aseertain when baked, the oven door should be partly opened, and a elean straw run into the heart of the eake and quickly withdrawn. If done enough the straw will eome out as elean as it went in; if not done enough, some of the eake will be found adhering to it. In the latter case the eake must be immediately returned to the oven. Cakes should be kept in a dry plaee, wrapped up and set in a close pan, to prevent them from hardening. If made without yeast they will keep a very long time. They may be heated on the hob or in a slack oven, to refresh them, when to be used.

870. **Icing for Cakes.**—Beat two pounds of powdered sugar with two ounces of fine stareh, sift the whole through a gauze sieve, then beat the whites of five eggs with a knife, upon a eool dish, for half an hour; mix in the sugar a little at a time, or it will eause the eggs to subside, and will injure the eolor; when all the sugar is put in, beat it for a few minutes longer, and then lay on the ieing with a knife. Dip the knife occasionally in eold water or lemon juiee; the latter improves the eolor and taste, and spread the ieing evenly over the eake. Plaee it in the mouth of the oven, or in the sun to harden, and then, if neeessary, apply a seeond eoating. The eake may be decorated with gum-paste, or eandy ornaments, whieh should be stuek on, just after the last eoat of ieing. If it is desired to color the ieing, a few drops of red aniline may be used. A number of beautiful shades may be produced by varying the quantity of aniline.

871. **Wedding Cake.**—Take two pounds of flour, dried and sifted, one pound of fresh butter; one pound of eurrants, carefully washed, picked, and dried; one pound of raisins, seeded; half a pound of eandied eitron, eut into thin sliees; a tablespoonful of cinnamon; half a tablespoonful of nutmeg; and ten eggs, the yolks and whites kept separate. Mix these ingredients in the following manner: —First, work the butter with the hand, till it is of the eonsisteney of eream, then beat in the sugar for ten minutes, whisk the whites of the eggs to a froth, and add the butter and sugar; next beat the yolks for ten minutes, add the flour and spiees, and beat the whole together for half an hour, or until the oven is ready; then mix in lightly the fruit, with the addition of a gill of brandy. Line a large pan with paper, rub it well with butter, pour in the mixture, and bake the eake in a tolerably quick oven. It will require about two hours and a half. Half the quantities given will make a eake sufficiently large for a small party.

872. **Jelly Cake.**—Three-quarters of a pound of sugar, half a pound of butter, a cup full of milk, a teaspoonful of eream of tartar, sifted with the flour; half a teaspoonful of soda, dis-

solved in the milk; six eggs, and a pound of flour. Beat well together, and bake in shallow hoops. Lay a cake on a flat surfaee and spread it with jelly, then another cake, then jelly, and so on, ieing the last. Or bake in long thin strips, spread with jelly and roll it up. Cut this into pieees an ineh thiek before serving.

873. **Queen Cake.**—Take one pound of flour, one pound of sugar, half a pound of butter, and the beaten whites of ten eggs. Flavor with extraet of almond or vanilla, and proeeed as for other eakes.

874. **Domestic Fruit Cake.**—Take a eup of butter, two cups of brown sugar, four eggs, a cupful of sweet milk, half a teaspoonful of soda, dissolved in hot water; a teaspoonful of eream of tartar, erushed and sifted with the flour; and flour suffieient to make a tolerably stiff batter. Then add your fruit—whieh, in this ease, eonsists of from four to six dozen of ehina baby-dolls, half an ineh long—and bake in a quiek oven. This is a capital eake for fairs and festivals, as all baehelors buy it.

875. **Marble Cake.**—Use the above ingredients, substituting white sugar for the brown, and when mixed, take out a cupful of the batter, which should not be so thiek as for the fruit cake, and mix with it a few drops of red aniline. Put a eupful or two of the yellow batter into the mould, and streak it with the red mixture; then more yellow batter, and then the red; and so on till the mould is full. Or, the eoloring may be made with grated ehocolate, or molasses; or both the dark and red eolors may be used.

876. **Sponge Cake.**—Take sixteen ounees white sugar, and twelve ounees of dried and sifted flour; beat up eight eggs, the yolks and whites separately. Stir the sugar into the yolks, then the flour, add a teaspoonful of extraet of lemon, and lastly, stir in lightly the beaten whites of the eggs. Bake in deep pans, in a quiek oven, for half an hour. Cover the eake with paper, if likely to beeome too brown.

877. **Pound Cake.**—A pound of flour, a pound of sugar, a pound of eggs, three-quarters of a pound of butter, flavoring to taste. If desired, a tablespoonful or two of brandy may be added. Mix thoroughly, and bake in rather a quiek oven.

878. **Fish Cake.**—Remove the bones and skin from any fish that is left at dinner, and put it into warm water for a short time. Then take it out, press it dry, and beat it in a mortar to a fine paste with an equal quantity of mashed potato; season to taste. Make the mass up into round flat eakes, and fry them in butter or lard till they attain a fine brown eolor.

879. **Potato Rolls.**—Boil three pounds of potatoes, bruise and work them with two ounces of butter, and as mueh milk as will make them pass through a eullender. Take three-quarters of a pint of yeast, and half a pint of warm water; mix these with the potatoes, pour the whole upon five pounds of flour, and add three teaspoonfuls of salt. Knead it well: if not of a proper eonsistenee, add a little more warm milk and water. Let it stand before the fire an hour, to rise; then work it well, and make it into rolls. Bake them about half an hour in a moderate oven. These rolls will eat well, toasted and buttered.

880. **German Cake.**—Mix well together a pound and a half of finely powdered loaf sugar, two pounds of well-dried flour, and an ounee of earaway seeds; make it into a stiff paste, with the whites of three eggs beaten in a quarter of a pint of milk; roll it out very thin, eut it into shapes, priek them with a fork, and bake upon buttered tins.

881. **Buns.**—Mix two pounds of flour with half a pound of sugar. Make a hole in the middle of the flour, and pour in two tablespoonfuls of yeast, and half a pint of warmed milk. Make a thin batter of the surrounding flour and the milk, and set

the dish covered before the fire till the leaven begins to ferment. Put to the mass half a pound of melted butter, and milk enough to make a soft paste of all the flour. Cover this with a dust of flour, and let it rise once more for half an hour. Shape the dough into buns, and lay them apart on buttered tin plates in rows, to rise for half an hour. Then bake in a quick oven.

882. Chocolate Drops.—Put a quarter of a pound of grated chocolate into a tin and make it warm over the fire; then put a pound of powdered sugar into a basin, and when the chocolate is quite warm and soft, add it to the sugar, and mix it well with eight whites of eggs; bring it to a paste, and roll it into masses the size of a hickory nut; put them into a moderate oven with three papers under them; bake them till they are crisp and firm, and when quite cold remove them from the paper.

883. Wafer Biscuits.—Add one ounce of butter and the white of one egg well beaten to one pound of flour; mix them with as much cream or good milk as will make a thick paste; work the paste up well till it is as fine as glass; then cover it over, and set it before the fire for twenty minutes; break it in pieces the size of a walnut, roll it out as thin as a wafer, using as little flour as possible in doing it. Bake about three minutes in a quick oven.

884. Crullers.—Take two cupfuls of white sugar, one cupful of butter, four eggs, one cupful sour milk, a teaspoonful of soda, and flour enough to make a tolerably stiff paste. Roll out thin, cut into rings, and fry in boiling lard. Sift powdered sugar over them while hot.

885. Bordeaux Cake.—Roll paste to rather less than a quarter of an inch thick, and cut it into six or seven portions of equal size; lay these on lightly floured or buttered tins, and bake them in a slow oven until they are firm and crisp, and equally colored of a pale brown. When they are cold, spread upon each a different kind of choice preserve, and pile the whole evenly into the form of an entire cake. The top may be iced, and decorated according to fancy.

886. Cookies.—Three-quarters of a pound of butter, one pound of sugar, beat these to a cream, and add a cupful of milk, two eggs, a teaspoonful of soda, dissolved in hot water; and flour enough to stiffen. Cut with a round mould—a tumbler will do—dredge them with sugar, stick a raisin in the top of each, and bake in a quick oven.

887. Soft Gingerbread.—Take two cups of molasses, one cup of milk, one cup of butter, the same of brown sugar, two tablespoonfuls of ginger, half a tablespoonful of cinnamon, four eggs, about five cups of flour, and two teaspoonfuls of soda. Stir the butter, sugar, molasses, and spices together; warm the milk and add it to the mixture; then the beaten eggs, then the soda (dissolved), and finally, the flour, but do not make it too stiff. Stir it all briskly, and bake in a quick oven.

888. Another Soft Gingerbread.—Take a cupful, each, of molasses, butter, sugar, and sour milk; a teaspoonful of soda, a tablespoonful of ginger, one, two, or three eggs, according to the richness desired. Proceed as directed above.

889. Mrs. W's. Breakfast Buns.—Take two pounds of unbolted flour, a cupful of brewer's yeast, a third of a cupful of brown sugar, and enough warm water to make a stiff batter. Set over night, and bake in small pans for breakfast. We have eaten buns made by this recipe, warm for breakfast and cold for tea, and pronounce them the best we have ever tasted. If you have not suitable pans, get a tinsmith to make some five inches long, and two wide, with rounded bottoms. Six of these should be fastened together by strips of tin riveted to the ends of the pans.

890. Passover Cake.—Make a stiff paste with biscuit powder, milk, and water; add a small piece of butter, the yolk of an egg, and a little white sugar. Cut into pieces, mould with the hand, and bake in a brisk oven. To make it *without butter*, warm a quarter of a pint of water, flavored with a little salt; mix four eggs with half a pound of Hebrew or "matso" flour, and a dessert-spoonful of powdered loaf sugar; mix with a teacupful of milk, and bake in a tin.

891. Sugar Cakes.—Take half a pound of dried flour, half that quantity of fresh butter, and a quarter of a pound of sugar; then mix together the flour and sugar, rub in the butter, and add the yolk of an egg beaten with a tablespoonful of cream; make it into a paste, roll, and cut it into small round cakes, which bake upon a floured tin.

892. Home-made Bread.—Two very important reasons urge the propriety and necessity of using home-baked bread in preference to that purchased of the baker; these reasons are its superior quality and its cheapness. With regard to quality, the difficulty of obtaining pure and wholesome bread is well known, and it is equally notorious that the deleterious compounds often vended under the name of bread, seriously impair the digestive organs, and prejudice the health gengerally. With regard to cheapness, the fact has been ascertained that, in making the bread at home, there is a saving of one-third of the cost of baker's bread. It is therefore apparent that on the score of both economy and health, it is of the utmost consequence, especially in large families, that home-made bread should be used.

893. How to make Bread.—Supposing a person never yet to have attempted to make bread, wishing to do it well, and having no one to furnish the necessary instructions, such person may succeed perfectly by strictly attending to the directions hereafter given. It must be premised, however, that as a small baking is easier to manage than a large one, and the expense attendant on failure necessarily much less, the receipt is given for a limited quantity by way of trial. Put half a gallon of flour into the pan; then with a large metal or wooden spoon hollow out the middle, without entirely cleaning away the flour from the bottom of the pan; then put four tablespoonfuls of brewer's yeast into a bowl, and proceed to mix it so that it shall be as smooth as cream, with three-quarters of a pint of just warm milk and water, or water only. In order to prevent lumps forming, the liquid must be poured in by spoonfuls just at the beginning, stirring and working it round well, to mix it perfectly with the yeast, before the remainder is added. Pour the yeast into the hole made in the middle of the flour, and stir into it as much of that which lies round it as will make a thick batter; this must also be free from lumps; strew plenty of flour on the top, throw a thick clean cloth over it, and set it where the air is warm, taking care not to place it too near a large fire, and at the same time raising it from the floor, so that it may be protected from constant draughts of air, which would otherwise pass over it. Look at it from time to time after it has been laid for an hour, and when it is perceived that the yeast has risen and broken through the flour, and that bubbles appear, it is then ready to be converted into dough—this is technically called the *sponge*. Place the pan on a strong chair or table of convenient height, and pour into it half a pint of warm milk or water, in which two teaspoonfuls of salt have been dissolved; and stir into it as much flour as you can with a spoon. Next throw plenty of the remaining flour on the top of the leaven, and begin with the knuckles of both hands to *knead* it well. This process is best performed by a strong, steady movement, rather than a quick irregular action. In the meantime keep throwing up

the flour which lies under and round the dough, on to the top of it, that it may not stiek to the fingers. When the flour is nearly all kneaded in, begin to draw the edges of the dough towards the middle, in order to mix the whole thoroughly, and eontinue to knead it in every part, spreading it out and then turning it eonstantly from the side of the pan to the middle, and pressing the knuekles of your closed hands well into and over it. When the whole of the flour is worked in, and the outside of the dough is quite free from it, as well as from all lumps or erumbs, and does not stiek to the hands when touched, it will be suffieiently prepared, and may be again eovered with the cloth, and left to rise a second time. In three quarters of an hour, look at it; and should it have swollen very mueh, and begun to erack, it will be in a fit state to bake. Turn it then on to a paste-board, and with a large sharp knife, divide it into two, shape it into loaves, and dispatch it to the oven. If it is to be baked on a flat tin, or on the oven floor, dust a little flour on the board, and make the loaves up lightly into the form of dumplings. Give them a good shape by working them round quickly between the hands, without lifting them from the board, pressing them slightly as you do so; then take a knife in the right hand, and turning each loaf quiekly with the left, just draw the edge of it round the middle of the dough, but do not eut deeply into it. Make also one or two slight ineisions across the tops of the loaves, as they will rise more easily when this is done. To prevent the bread sticking to the pans, and being turned out with difficulty after it is baked, they should be rubbed with butter. When the loaves are drawn from the oven, they should be turned upside down or on their sides, or they will become wet and blistered from the confined steam; they should thus remain until they are perfectly cold.

894. Another Method, and for beginners a surer one, is to prepare a sponge as follows: Boil four potatoes, and while hot, peel and mash them fine; add to this a quart of warm water, six tablespoonfuls of brewer's yeast, a teaspooful of soda, and flour to make it as thick as ordinary batter; (a little lard is sometimes added.) Cover and set to rise over night in a warm place. In the morning, sift some flour into a bread-dish, adding a little salt, make a well in the centre of it, pour in the sponge, and proeeed to work the flour into it. Knead it, as direeted above, for half an hour, and set the mass to rise for four hours. Then divide it into loaves, working each one lightly for a few minutes, and put them into pans to rise a seeond time. They should be ready for the oven in three-quarters of an hour.

895. Potato Bread.—Boil the quantity of potatoes required in their skins. When done, peel them, and bruise them with a rolling pin, to the eonsistenee of a paste. To this add as mueh flour as there is potato-pulp, and some yeast. Knead them well, putting as mueh water as may be neeessary. When properly kneaded form them into loaves, and place them in the oven, taking care that it be not quite so hot as for ordinary baking, or the bread will become hard on the outside before the inside is properly baked. The door of the oven should not be elosed so soon as is usually done. This bread must be allowed a longer time to bake than any other.

896. General Directions for Bread Making.—The following general rules in eonnexion with bread-making, will be found worthy of attention:

i. The temperature of the water or milk, must be regulated by the season; in summer it should be milk-warm; in autumn and winter a few degrees warmer; and in frosty weather, as hot as the hand can bear it; but never sealding or the whole will be spoiled.

ii. Soft water should be used for

bread-making and the dough should not be made too stiff.

iii. When there is reason to suspect, either from the appearance or smell of the flour, that it is not good, and there is still a necessity for using it, let it be baked for an hour in a very slack oven; and add to it, when making into dough, five grains of carbonate of ammonia, carefully powdered, for every pound of flour.

iv. Bread should be put into the oven as soon as the loaves are formed, and when in, the oven door should be fastened up closely, and only opened when absolutely necessary.

v. When bread is home-baked, the time when it will be ready for baking should be correctly calculated, so that the oven may be made fit to receive it at the exact moment.

vi. Bread made entirely with milk, becomes dry much sooner than that which is moistened with a portion of water. If the flour and yeast are good, water alone will yield the most wholesome and nutritious bread.

vii. The making of the dough should be completed in one operation; for if abandoned when half made, and allowed to cool before it is finished, it is certain to be spoiled.

viii. Yeast that is sour, or that has been frozen, or scalded by having overhot liquor poured to it, will fail to produce light bread.

ix. To ascertain whether dough be light enough to bake let the knuckles be pressed hard upon it; and if the impression disappears in a short time, it is ready for the oven.

x. Rather a quick oven is required to bake bread properly. Occasionally, it will be light and well flavored when slowly baked, but seldom of a good color. The heat should be so regulated, that it may penetrate the dough thoroughly before the outside becomes hard.

xi. If bread is withdrawn from the oven before it is sufficiently baked, it should be returned immediately; for if suffered to become cold, the application of heat will have no effect upon it.

xii. When the dough has been kneaded into too thin a consistence, so that it spreads about, instead of remaining in shape, when moulded into loaves, it should be put into rather a slow oven, otherwise the outside will speedily harden and lock up the moisture.

xiii. In warm weather, the fermentation of the sponge and dough must be watched with critical precision. If either be left in a state of active fermentation for so short a period above the proper time as even half an hour, there is a risk of sourness, and the mass will sink and become heavy. In any weather the quality of the bread will be prejudiced by over working.

xiv. As the heat of the oven is greatest at the further end, and at the sides, the largest loaves should be placed there, and the smaller ones in the centre, and near the mouth of the oven.

xv. When bread is sufficiently baked, the surface will be uniformly browned, everywhere firm to the touch, the bottom crust being especially hard. To test whether bread is done which has been cut, press down the crumb lightly in the centre with the thumb; when it is elastic and rises again to its place, it is a proof that it is perfectly done; but if the indentation remain, it is not done.

897. Yeast.—In bread-making a great deal depends on the yeast; for unless it is good, and in a fitting state to produce ready and proper fermentation, the best flour will fail to yield wholesome or even eatable bread. A knowledge of the due proportion is also indispensable; too much impairs the flavor of the bread and diminishes its nutrient qualities, while too little fails to render it light or digestible.

898. How to Make Yeast.—Boil, say on a Monday morning, two ounces of the best hops in four quarts of water for half an hour; strain it, and let the liquor remain till luke-

warm; then put in a small handful of salt and half a pound of sugar; beat up a pound of the best flour with some of the liquor, and then mix all well together. On Wednesday, add three pounds of potatoes, boiled and afterwards mashed; let these stand till Thursday; then strain the mixture, and put it into bottles, and it is ready for use. Observe to stir it frequently while being made, and keep it near the fire. Before using, shake the bottle well. This yeast will keep in a cool place for two months, and is in its best condition at the latter part of that time. One recommendation of this preparation is, that it ferments spontaneously, not requiring the aid of other yeast; and if it be allowed to ferment thoroughly in the earthen bowl in which it is made, it may be corked up tightly, immediately it is bottled.

899. ANOTHER WAY.—Put a handful of hops to three quarts of water, and let it boil for two hours; then strain the hops away, and mix a pint of flour with the liquor, and while hot, a teacupful of moist sugar; let it remain until it is lukewarm, then work it with a teacupful of yeast, stirring it constantly; let it stand for twenty-four hours, and then put it into jars for use.

900. Mrs. Dickey's Yeast.—Put three pints of water into a saucepan, add to this a large handful of good hops, and set it on the stove to boil. While the hops are boiling, grate into a large bowl, three good-sized raw potatoes; stir into them a cupful of flour, and a tablespoonful each of sugar, ginger, and salt. Set the bowl on the stove, stirring constantly until the mixture is milk-warm; then pour into it the hop-water, and remove it from the stove. When lukewarm, add to it a cupful of good yeast; let it stand in a warm room for twenty-four hours, then put it into a jug; cork it, and keep in a cool cellar.

901. Baking Powders.—Baking powders are used instead of yeast. The ingredients are separately and perfectly dried at a gentle heat; then mixed thoroughly, and put into packages, or well stoppered bottles, to exclude air and moisture. The following are the best:—

i. Tartaric acid, two ounces; bicarbonate of soda, three ounces; flour, three ounces.

ii. Carbonate of soda half an ounce; cream of tartar, one ounce.

In using, a teaspoonful or two are put into a quart of dry flour; which should be quickly made up and baked.

902. Rules for Making Pastry.—In making pastry, the greatest possible cleanliness should be observed. The slab, board, tins, moulds, cutters, etc., should be perfectly free from dust and dirt, and should only be used for the purposes for which they are intended. No part of the paste should be left adhering to the board or dish used in making. The best thing to make paste upon is a slab of marble or slate, which substances cause less waste, being cold and smooth. The coolest part of the house should be chosen for the operation; the hands should be previously washed in cold water; and the less they come in contact with the paste, the better and lighter it will prove. The more expeditiously the fine kinds of paste are mixed and despatched to the oven, the better they will be. Also, much of their excellence depends upon the baking. They should have a sufficient degree of heat to raise them quickly, but not so fierce a one as to color them too much before they are done, and still less to burn them. The oven door should remain closed after they are put in, and not removed until the paste is set. The butter should always be fresh and very good. Wash it in cold water before using it, and then make it up into hard lumps with the hands, squeezing the water well out. If the butter and the sugar are to be stirred together, always do that before the

eggs are beaten. For stirring them, nothing is so convenient as a round hard stick, about a foot and a half long, and somewhat flattened at one end. The eggs should not be beaten till all the other ingredients are ready, as they will fall very soon. If the whites and yolks are to be beaten separately, beat the whites first, as they will stand longer. Eggs should be beaten in a broad shallow pan, spreading wide at the top. Butter and sugar should be stirred in a deep pan with straight sides. Break every egg by itself in a saucer, before it is put into the pan, so that any bad ones may not be mixed with the others. Eggs are beaten most expeditiously with a patent beater. But a small quantity of white of egg may be beaten with a knife, or a three-pronged fork. In mixing paste, the water should be ice cold, and added gradually, and the whole gently drawn together with the fingers, until sufficient has been added, when it should be lightly kneaded until it is as smooth as possible. When carelessly made, the surface is often left covered with small dry crumbs or lumps; or the water is poured in heedlessly in so large a proportion, that it becomes necessary to add more flour to render it workable in any way; and this ought to be particularly avoided when a certain weight of all the ingredients has been taken. The flour employed should be well dried in a plate in the oven, or before the fire.

903. Paste for Tarts, Pies, etc.—Paste may be made of various qualities, according to the materials used and the contents of the dish. The following receipts will be found the best that can be followed in each instance:

904. Puff Paste.—Break lightly into two pounds of dried and sifted flour eight ounces of butter; add a pinch of salt and sufficient cold water to make the paste; work it as quickly and as lightly as possible, until it is smooth and pliable; then level it with a paste-roller till it is three-quarters of an inch in thickness, and place regularly upon it, six ounces of butter in small bits; fold the paste like a blanket pudding; roll it out again, lay on it six ounces more of butter, repeat the rolling, dusting each time a little flour over the board and paste, add again six ounces of butter, and roll the paste out thin three or four times, folding the ends into the middle. If very rich paste be required, equal portions of flour and butter must be used; and the butter may be divided into two instead of three parts when it is to be rolled in.

905. Cream Paste.—Stir a little fine salt into a pound of very dry flour, and mix gradually with it sufficient very thick sweet cream to form a smooth paste; roll in four ounces of butter and give the paste a couple of turns. Handle it as lightly as possible in making it, and send it to the oven as soon as it is ready; it may be used for fruit tarts, puffs, and other varieties of small pastry.

906. French Paste.—Sift two pounds of fine dry flour, and break it into a pound of butter, work them well together with the fingers until they resemble fine crumbs of bread; then add a small teaspoonful of salt, and make the whole into a firm paste with the yolks of two eggs well beaten, mixed with half a pint of cold water, and strained.

907. Plain Paste.—Mix a teaspoonful of cream of tartar, and half a teaspoonful of soda, with a pound of sifted flour; work into a stiff paste with ice water; then roll into the paste three-quarters of a pound of butter.

908. Almond Rocks.—Cut in small slices three-quarters of a pound of sweet almonds, half a pound of candied peel, and two ounces of citron; add one pound and a half of sugar, a quarter of a pound of flour, and the whites of six eggs; roll the mixture into small sized balls, and lay them on wafer paper about an inch apart; bake them in a moderate oven, until they are of a pale brown color.

909. Custard Cream.—Boil half a pint of milk, and add to it three pints of cream; stir into it the well-beaten yolks of eight eggs; sweeten to taste; put it into a saucepan, and stir it constantly till it thickens. Flavor with lemon or vanilla, and pour it into a deep dish, stirring now and then till cold. Serve in glasses or cups.

910. Apple Cream.—Peel a dozen and a half large apples and boil them to a pulp, then add two pounds of powdered loaf sugar and the whites of three eggs; mix thoroughly together and serve when cold in a dish.

911. Almonds Blanched.—Put them into cold water, and heat them slowly to scalding; then take them out and peel them quickly, throwing them into cold water as they are done. Dry them in a cloth before serving.

912. Chantilly Basket.—Bake sweet biscuits quite crisp, have ready some sugar clarified and boiled to crackling height. Stick a fork into each biscuit, and dip its edge in the sugar. Fix them one by one, as dipped, round a dish or mould that will shape the basket. When one row is done, begin another. The candied sugar will make the biscuits instantly stick. Three or four tiers will be high enough. An ornamental border of colored drops of gumpaste may be given to the basket. Any dry sweetmeat may be served in this basket, being previously lined with tissue paper.

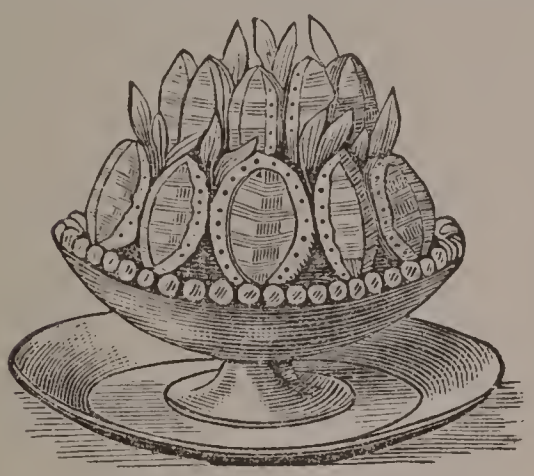
913. Meringues.—Whisk to the firmest possible froth the whites of six fresh laid eggs, taking every precaution to prevent the smallest particle of yolk from falling in among them. Lay some squares or long strips of writing-paper closely upon a board, or earthen plate. When all is ready, mix with the eggs three-quarters of a pound of the finest sugar, well dried and sifted; stir them together for half a minute, then with a tablespoon lay the mixture quickly on the papers in the form of a half-egg: sift sugar over them without delay, blow off all that does not adhere, and set the meringues in a gentle oven. The process must be expeditious, or the sugar melting will cause the cakes to spread, instead of retaining the shape of the spoon as they ought. When they are colored to a light brown, and are firm to the touch, draw them out, turn the papers gently over, separating the meringues from them, and with a teaspoon scoop out sufficient of the insides to form a space for some whipped cream or preserves, and put them again into the oven upon clean sheets of paper, with the moist sides uppermost, to dry; when they are crisp enough they are done; let them become cold, fill and join them together with a little white of egg.

914. Apples Frosted.—Peel some pippins, stew them in a thin syrup till they become tender, dip them into the white of an egg that has been whipped into a froth, and sift pounded sugar over them thickly; put them in a cool oven to candy, and serve in a glass dish.

915. Candied Fruit.—Fruit boiled in strong syrup and then dried. When finished in the syrup, put a layer of fruit into a new sieve, and dip it suddenly into hot water, to take off the syrup that hangs about it; then put it on a napkin before the fire to drain, and do some more in the sieve. Have ready sifted double-refined sugar, which strew over the fruit on all sides till quite white. Set it in a single layer on sieves in a lightly warm oven, and turn it two or three times. It must not be allowed to cool till perfectly dry.

916. Candied Peel.—Take out the pulps of lemons or oranges, soak the rinds six days in salt and water, and afterwards boil them till tender in spring water. Drain them on a sieve, make a thin syrup of loaf sugar and water, and boil the peels in it till the syrup begins to candy about them. Then take them out, grate fine sugar over them, drain them on a sieve, and dry them before the fire.

917. Oranges with Jelly.—An elegant and faneiful dish for the supper table or the dessert, prepared as follows: Take some very fine China oranges, and with the point of a small knife cut out from the top of eaeh a round pieee about the size of a shilling; then with the small end of a teaspoon or eggspoon separate the fruit from the rind, taking eare not to break the latter. Throw the rinds into eold water, and make jelly of the juiee, which must be well pressed from the pulp,



and strained as clean as possible. Color one half a fine rose color with a few drops of red aniline, and leave the other half very pale; when the juiee is nearly cold, drain and wipe the rinds, and fill them with alternate stripes of the two jellies; when they are perfeetly eold, eut them into quarters, and dispose them tastefully in a dish with a few light braneheS of myrtle between, somewhat after the manner of the aeeompanying engraving. Calf's feet, or any other variety of jelly, or different blanc-manges may be used at ehoiee to fill the rinds.

918. Swiss Cream.—Flavor with lemon one pint of eream (leaving out a little to mix with two teaspoonfuls of fine dried flour to a smooth batter); add six ounees of lump sugar; put the eream and sugar into a saucepan, and, when boiling, add by degrees the flour; simmer four or five minutes, stirring all the time; pour it out, and, when cold, mix with it by degrees the juice of two lemons. Take a quarter of a pound of lady-fingers, or strips of sponge-cake, put part of them in a dish, and pour over them a glass of white wine, then part of the eream, then lady-fingers and eream again; ornament with slieed eitron. It should be made some hours before wanted

919. Blanc-mange Eggs.—Make a small hole at the end of four or five large eggs, and let all the egg out earefully; wash and drain the shells, and fill them with cream blanc-mange; plaee them in a deep dish filled with rice to keep them steady, and when quite eold gently break and peel off the shell. Cut the peel of a lemon into fine shreds, lay them in a glass dish, and put in the eggs. Or they may be placed in a mould, or dish, and elear gelatine jelly poured over them. The jelly must not be hot. Put it on ice, or in a eool plaee to harden, and turn out on a glass dish.

920. Cream Blanc-mange.—Put an ounce of gelatine into a pint and a half of eream; boil in a farina-kettle until the gelatine is dissolved; then stir in a cupful of powdered sugar, and half a pint of white wine. Remove it from the fire; flavor to taste, and beat it for ten or fifteen minutes. Pour into moulds, that have been dipped in cold water, and set them in a eool place until ready to serve.

921. Cream Trifle.—Put into a shallow dish half a pint of white wine, a pint and a half of eream, and a quarter of a pound of powdered loaf sugar; whisk the whole together in a dish, and take off the froth as it rises. Have ready a glass dish, in whieh are six sponge biscuits, twelve ratafias, and six maearoons steeped in wine. Pour a boiled custard over the biseuits, then eover the whole with the whisked eream.

922. Cocoa-Nut Sweetmeat.—Pare the nut and throw it into eold water; then grate it, and boil it in elarified sugar (in the proportion of a pound to each pound of cocoa-nut)

until quite thick; stir it frequently to prevent it burning. Then pour it on a well-buttered dish or marble slab, and cut it into any form desired.

923. Pine Apple Compote.—Peel a pine apple rather thickly to leave no black spots upon it, make a syrup with half a pound of sugar, cut the pine apple into round slices a quarter of an inch in thickness, put them into the syrup, and boil them for ten minutes; remove them with a cullender spoon, reduce the syrup until it attains a somewhat thick consistence, and pour it over the pine apple; when cold it is ready to serve.

924. Cream Whipped.—Sweeten with powdered loaf sugar a quart of cream, and flavor it with orange-flower water, or any other agreeable extract. Whisk the cream thoroughly in a large pan, and as the froth rises, take it off, lay it upon a sieve placed over another pan, and return the cream which drains from the froth, till all is whisked; then heap it upon a dish, or put it into glasses. Garnish with thinly pared citron, cut into any fanciful shape, and serve.

925. Caramel Sugar.—Sugar when boiled undergoes certain changes according to the degree of boiling. The last stage is called caramel, and is chiefly employed in making confectionery. In boiling sugar the caramel degree may be ascertained thus: Take out a little on the end of a piece of wood and dip it suddenly into very cold water, if the sugar snaps with a loud noise, and is of a bright yellow color, it is done. The pan should then be immediately taken off the fire, and the bottom of it placed in a vessel of cold water, lest the heat which is in it continue so long as to make it darker than it ought to be.

926. Covering for Preserves.—White paper cut to a suitable size, dipped in brandy, and put over the preserves when cold, and then a double paper tied over the top. All preserves should stand a night before they are covered. Instead of brandy, the white of eggs may be used to glaze the paper covering, and the paper may be pasted round the edge of the pot instead of tied—it will exclude the air better.

927. Apple Souffle.—Peel, core, and slice twelve apples, put them into a deep dish, and cover them to about the depth of two inches, with rice boiled in new milk and sugar; beat up the whites of two eggs, and pour it over the rice, and bake it to a pale brown.

928. Raspberry Fool.—To a pint of cream add an ounce of isinglass (dissolved in the smallest possible quantity of water), two tablespoonfuls of powdered loaf sugar, and a teacupful of raspberry jelly, made liquid. Mix all well together, put it into a mould, and let it be placed in a cellar, or any very cold place until wanted. This recipe, from the ease and expedition with which it can be prepared, will be found excellently adapted for family use when, from any cause, an extra dish of sweets is unexpectedly required. If no jelly should be at hand, raspberry jam may be strained through a piece of muslin to get rid of the seeds, and it will then answer the purpose quite as well.

929. Strawberry Souffle.—Stew the strawberries with a little lemon-peel, sweeten them, then lay them pretty high round the inside of a dish; make a custard of the yolks of two eggs, a little cinnamon, sugar, and milk. Let it thicken over a slow fire, but not boil. When ready, pour it into the inside of the strawberries. Beat the whites of the eggs to a strong froth, and cover the whole. Throw over it a good deal of pounded sugar, and brown it of a fine brown. Any fruit made of a proper consistence does for the walls. Strawberries when ripe are delicious.

930. Strawberry Fool.—Bruise a pint of strawberries and a pint of raspberries, pass them through a sieve, and sweeten them with half a pound of fine sugar pounded, then boil it over the fire for two or three minutes; take it off, and set on a pint

and a half of cream, boil it and stir it till it is cold; when the pulp is cold, put them together, and stir them till they are well mixed; serve the mixture in glasses or cups.

931. Strawberries with Jelly.—Boil together for five minutes, one pint of water and three-quarters of a pound of very good sugar; measure a quart of ripe richly-flavored strawberries without their stalks; on these pour the boiling syrup, and let them stand all night. The next day, clarify two ounces and a half of isinglass in a pint of water, add to it the clear juice of one large lemon; and when the isinglass is nearly cold mix the whole, and put it into moulds. The French, who excel in these fruit jellies, always mix the separate ingredients when they are almost cold; and they also place them over ice for an hour or so after they are moulded, which is a great advantage, as they then require less isinglass, and are in consequence much more delicate.

932. Tapioca Blanc-mange.—Soak half a pound of tapioca in a pint of cold water for four or five hours; warm a pint of good rich milk, add to it the tapioca and three or four tablespoonfuls of white sugar. Boil for ten or fifteen minutes; remove it from the fire, flavor with lemon or vanilla, and pour into moulds. Serve with cream and sugar.

933. Tapioca Jelly.—Take a quarter of a pound of tapioca, swell it in a pint of water; boil this until clear; then add the juice of a lemon, and a teaspoonful of the extract; sweeten to taste, pour into a dish or mould, and set in a cold place. Eat it with sweetened cream. If desired, a glass of port, or Madeira wine, may be substituted for the lemon juice.

934. Raspberry Sponge.—Dissolve in a little water three-quarters of an ounce of isinglass, add to it three-quarters of a pint of cream, and the same proportion of new milk, half a pint of raspberry jelly, and the juice of a lemon. Whisk it well in one direction until it becomes thick, and looks like sponge, then put it into an earthenware mould and turn it out the next day. If placed on ice it will be ready to serve in four hours.

935. Cream Ratafia.—Boil a teacupful of thin cream for three or four minutes, strain, and mix with it a pint of thick cream, add three whites of eggs, well beaten, and sweeten it with powdered sugar. Put the whole into a saucepan, and stir it gently in one direction over a slow fire till it be thick. Turn it into a dish, flavor it, and when quite cold, serve with sweetmeats and comfits strewn over the top.

936. Apples Frosted.—Peel some pippins, stew them in a thin syrup till they become tender, dip them into the white of an egg that has been whipped into a froth, and sift pounded sugar over them thickly: put them in a cool oven to candy, and serve in a glass dish.

937. Wine Jelly.—Soak an ounce and a half of gelatine in a quart of cold water for half an hour; add to this the juice of two lemons, and the peel of one; the whites and shells of two eggs, the whites slightly beaten, the shells crushed; and a pound of white sugar. Put the ingredients into a saucepan and let it boil for twenty minutes without stirring. Strain it through a flannel bag without squeezing, and add half a pint of white wine. Wet the mould in cold water, pour the jelly in, and leave it in a cool place to harden.

938. Flummery.—Boil, in half a pint of water, an ounce of isinglass till dissolved; strain and mix it with a quart of cream or good milk—if cream, not so much isinglass; stir it over the fire till it comes to a boil; when a little cooled, add gradually the beaten yolk of six eggs, and a glass of white wine. Pour it into a deep dish, sweeten with pounded loaf-sugar, stir it till cold, and then put it into a shape. Or, in lieu of the glass of wine, rub a lump of sugar upon the peel of a

lemon to extract the flavor, and add it to the cream.

939. Irish Stew.—Cut rather thick chops from a loin of mutton, say half a dozen; put them into a saucepan, and add a dozen good sized potatoes sliced and placed in layers with the chops, half a dozen small onions, and about a quart of water; season with pepper and salt; cover the saucepan closely, and let the contents stew over a moderate fire for two hours, or until the potatoes have become nearly a mash, and have absorbed all the gravy from the meat, and the water. The stew should then be dished and eaten hot.

940. Potato Rolls.—Boil three pounds of potatoes, bruise and work them with two ounces of butter, and as much milk as will make them pass through a cullender. Take three-quarters of a pint of yeast, and half a pint of warm water; mix these with the potatoes, pour the whole upon five pounds of flour, and add three teaspoonfuls of salt. Knead it well; if not of a proper consistence, add a little more warm milk and water. Let it stand before the fire an hour, to rise: then work it well, and make it into rolls. Bake them about half an hour in a moderate oven. These rolls will cut well, toasted and buttered.

941. Apple Dumplings.—Make a good puff paste, peel, core, and cut into quarters some large apples, then roll some of the crust round each apple; dip a clean cloth into boiling water, slightly flour it, tie each dumpling up separately, and put them into the boiling water; keep them boiling for three-quarters of an hour and they will be done.

942. Raspberry Vinegar.—Bruise a quart of fresh-gathered raspberries in a basin; pour over it a pint of vinegar, cover it closely; let it stand for three days, and stir it daily; strain it through a flannel bag; let it drop as long as anything will come from it, but do not press it; to a pint of the liquor put a pound of powdered loaf-sugar, boil it for ten minutes and take off the scum as it rises. When cold, bottle and cork it securely. This is a very useful preparation to keep in a house, not only as affording the most refreshing beverage, but being of singular efficacy in complaints of the chest. A large spoonful or two in this case is to be taken in a tumbler of water.

943. Toast Buttered.—The bread should be cut thicker than for dry toast, from a square loaf, taking care to toast the whole round. When the first slice is toasted, it should be buttered on one side, then cut into quarters and placed upon the plate before the fire, while the next slice is toasted, buttered, and cut, when it also must be placed upon the first piece; and so on for as many slices as are required. The crust should be properly cut off before the bread is toasted, and carefully put away, as it will make a very good bread pudding, and ought not to be wasted.

944. Toast Dry.—Cut very thin slices of bread from a loaf not less than two days baked; put either one or two at a time on the toasting-fork, taking care not to hold them too near the fire; they should be just warmed on each side, then turned, and, when sufficiently done on one side, they should be turned again; and when they are thoroughly toasted, they should be either placed upright on a plate, one against the other, or put in the toast-rack; but they should be kept near the fire until required for the table. Toast should never be made long before it is sent to table, or it becomes tough and leathery; some people cut off the crust.

945. Sandwiches.—These require more care than is usually bestowed upon them; for this reason, that every one believes he can cut sandwiches. Where any quantity is required, the bread should be made on purpose, and the baker should be desired to bake it in tins; and either add a little butter to it or prove it well be-

fore it is put in tins, so that it should not be full of holes, as in that case too much butter is bad, and the sandwich becomes disagreeable from being greasy. Cut the bread moderately thin, butter it very slightly indeed; lay the meat cut thin, season with salt, pepper, and mustard, as may be required; cover with a second slice of bread, trim the edges, put them one on the other, and cover with a damp cloth until required. Where tongue is used, it should be boiled the day before. Chickens boned and forced with a small quantity of forced veal and ham, make excellent sandwiches. All kinds of meat used for sandwiches should be thoroughly done.

946. Sardines.—These little delicacies are sometimes imported in brine; but more generally they are preserved in oil, in small tin cases, holding from half a pound to a pound, and containing in each, on the average, about twelve and twenty-four fish respectively, at fifty and seventy-five cents per case. They are a very wholesome and agreeable addition to the breakfast, luncheon, or supper table.

947. Calf's Feet Jelly.—Boil two calf's feet with one ounce of isinglass, to bring it to a stiff jelly. Add two or three shreds of lemon-peel, a bunch of sweet herbs, thirty peppercorns, six cloves, a blade of mace, half a nutmeg, and half a saltspoonful of salt; when the jelly is done strain it; add to it lemon-juice and sherry to taste, boil it up, and pulp it through a sieve till fine.

948. Gelatine Cream with Jelly.—Dissolve an ounce of gelatine in half a pint of water; then take half a cupful of jelly, or jam with the seeds taken out, and whisk it up quickly with a pint of rich cream. Stir them together, and as soon as it begins to set put it into the mould.

949. Ice Creams.—Ice cream freezers may now be procured of any capacity desired, and at prices varying from two to twenty dollars. The directions for using them are as follows: —Having prepared the cream mixture, put it into the freezing pot and adjust the apparatus; then fill the pail with ice broken up sufficiently small to be admitted into the pail round the freezing pot; and to every three-inch layer of ice, add a layer of salt, using about a fourth as much salt as ice. Then keep it in rapid motion until the contents are frozen. As the cream congeals and adheres to the sides, it is broken down with a spoon, so that the whole may be equally exposed to the cold. As the salt and ice in the tub melt, more is added until the process is finished. If required to be kept long before use, the wooden peg should be taken out of the pail, and the water let off; then put the plug in again, and refill the pail with ice and salt as before, but use only half the quantity of salt.

950. Plain Ice Cream.—To each quart of cream, allow half a pound of the best white sugar, and four teaspoonfuls of the flavoring extract desired. *See Flavoring Extracts.*

951. Economical Ice Cream.—Wet up two tablespoonfuls of arrowroot with a little cold milk; add it to a quart of boiling milk, and set it aside to cool. When cold, stir into it a quart of cream and three-quarters of a pound of sugar. Flavor to taste and freeze.

952. Chocolate Ice Cream.—Dissolve a quarter of a pound of chocolate, that has been scraped or grated fine, in a pint of milk; add to it a quart of cream, and half a pound of sugar; turn it into the freezer and proceed as usual.

953. Coffee Ice Cream.—Make a cupful of strong, clear coffee; dissolve half a pound of sugar in a quart of cream, pour the coffee into it, and freeze.

954. Properties of Coffee.—Coffee, when properly prepared, and used in moderation, is to most persons an exhilarating, grateful beverage. With some persons, however, it is heating, and extremely difficult of diges-

tion. If drunk in the morning for breakfast it should be of a proper strength, and well diluted with either cold or hot milk. Coffee is frequently employed after dinner as a digester; when thus employed a small cupful only should be taken, without milk, and sweetened with sugar-eandy. In this guise it is also an exeellent substitute for spirits or wine. Coffee taken at night generally prevents sleep, oeeasions the aeeeleration of the pulse, and produees inereased vividness of ideas and hilarity. Persons, therefore, engaged in mental oeeupation at night will find this a far more agreeable and reliable resource than either wine or spirits. Different temperaments may experienee different effeets from eoffeedrinking; but on the whole, it may be said that this beverage is one of the most wholesome artieles of diet taken with prudenee, and one of the most dangerous if indulged in to exeess.

955. Adulteration of Coffee.—The extensive adulteration of this article of eonsumption is betrayed by the faet that a much larger quantity of a substance *called* coffee is annually sold than passes through the Custom House. The ehief articles with which coffee is adulterated are chicory, different kinds of grain, potatoes, and beans. In addition to these artieles, another ingredient is used, known as the coffee colorer, and this consists chiefly of burnt sugar. When eoffee is suspected, a portion of it should be plaeed gently on the surfaee of a glass of water; the genuine powder will remain swimming on the water, but the adulterants will sink to the bottom. The reason why the coffee floats upon the liquid is to be found in the quantity of essential oil whieh it eontains, making it lighter than the water, whieh it at the same time repels. It will also be observed in repeating these experiments, that the water to whieh eoffee alone has been added beeomes scarcely eolored for some time, whilst that with the chicory, in less than a minute assumes a deep brown tint. The presenee of roasted grain may also be deteeted by the blue color produeed on the addition of a solution of iodine to the eold deeoetion. These researeles may be further aided by the use of a microseope, by whieh the differenee in the grain of the coffee and other ingredients will be readily deteeted. Never buy *ground* eoffee except of tradesmen of unquestionable integrity; and in choosing *whole* eoffee, eare should be taken that the berry is not too dark; for, if so, it has been too mueh roasted, and some of its aetive properties have necessarily been injured or destroyed.

956. Roasting Coffee.—Persons who drink coffee habitually, and are very partieular about its flavour and quality, should purchase the best kind in a raw state, and have it roasted at home. Roasters are variously eonstrueted; and generally speaking, those are best, whieh most perfeetly prevent the aroma from eseaping. That it may be roasted evenly, only a small quantity should be done at a time; the fire should be moderate at first, until the aromatie smell is emitted, when it should be inereased and the operation quiekly finished. When it is a light brown eolor, spread it upon a large dish and throw a thiek eloth over it. Let it remain on the dish until it is quite eold, then put it immediately into eanisters or bottles, and exelude the air earefully from it.

957. How to make Coffee.—To produee this beverage in perfection it is neeessary to employ the best materials in its preparation; and the eoffee should also be fresh roasted and fresh ground. The proportion of coffee used should be *at least* one ounee to a pint and a half of water; and when desired stronger, the quantity of coffee should be inereased accordingly. The eoffee-pot should be heated previous to putting in the coffee with a little boiling water, the coffee may then be put in, and the boiling water poured over it. This simple infusion is all that is required to make good coffee,

for all the useful and palatable matter in coffee is so very soluble that it yields immediately to the action of hot water. If, however, boiling be insisted upon, the process should be performed as follows: Put the necessary quantity of water into a pot which it will not fill by some inches; when it boils, stir in the coffee; the contents of the pot will then gradually rise to the top and afterwards fall; let it boil slowly for three minutes longer, then pour out a large cupful twice, hold it high over the coffee-pot, and pour it in again; then set it on the stove for ten minutes longer. It will be perfectly clear by this means without any fining.

958. ANOTHER METHOD of making coffee is, to divide the water about to be used into two parts, and to set the coffee over the fire in one half of the *cold* water until it comes to a boil. After being set by the side of the fire for a few seconds, it should be poured off as clear as it will run. Immediately the remaining half of the water at a *boiling heat* should be poured on the grounds; the vessel is to be placed on the fire, and kept boiling for about three minutes. This will extract all the bitterness left in the grounds, and after a few moments' subsidence, the clear part is to be poured off, and mixed with the former liquor. This mixed liquor will contain all the qualities which originally existed in the roasted coffee in perfection, and will be as hot as any taste can reasonably desire to have it.

959. FINING.—If fining is necessary, it may be effected by adding a shred of isinglass, a small piece of clean eel or soleskin, or a spoonful of white of egg. Another plan is to place the vessel containing the made coffee upon the hearth, and to sprinkle over its surface half a cupful of cold water, which from its greater gravity descends and carries the foulness with it. Another method sometimes adopted is to wrap a damp cloth round the coffee-pot. The colour and flavour of coffee may both be improved by the addition of a single teaspoonful of port wine to a cupful of the beverage.

960. Growth and Preparation of Tea.—The tea-plant is a hardy, evergreen, and leafy shrub, which attains the height of from three to six feet and upwards. It is generally propagated from seed, and the plant comes to maturity in from two to three years, yielding in the course of the season three, and in some cases, four crops of leaves. The first gathering takes place early in the spring, a second in the beginning of May, a third about the middle of June, and a fourth in August. The leaves of the first gathering are the most valuable, and from them Pekoe tea, which consists of the young leaf-buds, as well as black teas of the highest quality, are prepared. Those of the last gathering are large and old leaves, and consequently inferior in flavor and value. The leaves vary considerably in size and form; the youngest leaves are narrow, convoluted, and downy; those next in size and age have their edges delicately serrated, with the venation scarcely perceptible; in those of medium and large sizes the venation is well marked, as series of characteristic loops being formed along each margin of the leaf, and the serrations are stronger and deeper, and placed at wider intervals. The principal varieties of black tea are Bohea, which is the commonest and coarsest description, Congou, Souchong, Caper and Padre Souchong, and Pekoe, which are of the highest quality, the last consisting of the very young unexpanded leaves, and which, when clothed with down, constitute flowery Pekoe. The principal varieties of green ten are Twankay, Hyson-skin, Young Hyson, Hyson, Imperial, and Gunpowder, which in green tea corresponds with flowery Pekoe in black. Imperial, Hyson, and Young Hyson consist of the second and third gatherings, while the light and inferior teas, separated from Hyson by a winnowing machine, constitute Hyson-skin. There

is, according to most writers, but one species of the tea-plant, from which the whole of the above, and many other varieties of tea are obtained, the differences depending upon soil, climate, weather, age of the leaves, and mode of preparation. The plants from which black teas are prepared are grown chiefly on the slopes of hills and ledges of mountains, while the green tea shrubs are cultivated in manured soils. Upon this circumstance many of the differences between the two varieties depend. Other differences are occasioned by the processes adopted in the preparation and roasting of the leaves. Thus, while black tea is first roasted in a shallow iron vessel, called a *kuo*, and secondly in sieves, over a bright charcoal fire, green tea does not undergo the second method of roasting, but only the first, that in the *kuo*. An important operation in the manufacture of tea consists in the rolling the leaves, so as to impart to them their characteristic twisted shape. This is effected by subjecting the leaves to pressure, and rolling by the hands in a particular manner.

961. Directions for Making Tea.—Tastes differ regarding the flavor of various sorts of tea, some preferring all black, others all green, and many a mixture of both in different quantities. A good mixture in point of flavor is two-fifths black, two-fifths green, and one-fifth gunpowder. In point of wholesomeness, however, all black is decidedly the best. The flavor and the strength of tea depends, in a great measure, upon the manner in which it is made, and the best way of conducting this process will be ascertained to be as follows:—The proportion of tea to be used is commonly considered as one teaspoonful for each person and one for the pot; this proportion will yield a beverage of an agreeable strength. An important feature is to have the water ready boiling, not simmering, as is too commonly the case; for, unless the water be boiling, the tea cannot possibly be good. Having well scalded the teapot, put in the tea, and pour over it about one-third of the water the pot will contain, and set it by the side of the fire for ten minutes, then fill up the pot and allow it to remain for six or eight minutes longer, by which time it will be thoroughly drawn. In pouring it out, be careful not to drain the pot to the very last cup, and also distribute the tea in such a manner among the partakers of it, that one portion does not have all the strong and the other portion all the weak. Never add fresh tea to that which has already been made by way of strengthening it, for it will not have that effect; but in the event of its being too weak, then put the additional tea into a large teacup, fill it up with boiling water, and leave it there closely covered for a few minutes, after which pour the contents into the teapot. Another plan recommended is always to use two teapots, each of sufficient size to hold the quantity of tea required; pour the whole of the water over the tea at once, and do not allow it to stand more than three or four minutes, when it should be poured into the other teapot and served from that. If the party is large, this process must be repeated. By this means all the tea will be of equal strength, and the aromatic flavor will be extracted without any of the injurious matter. Soft water is better for making tea with than hard water, the former is least impregnated with foreign mixture, and will always yield the greatest quantity of tannin.

It is a well-ascertained fact, that the infusion of tea made in silver or polished metal teapots is stronger than that which is produced in black or other kinds of earthenware. This is explained on the principle that polished surfaces retain heat much better than dark, rough surfaces, and that, consequently, the heat being confined in the former case, must act more powerfully than in the latter. It is further certain that the silver or metal teapot, when filled a second time, pro-

duces worse tea than the earthenware vessel, and that it is advisable to use the earthenware pot, unless a silver or metal one can be procured sufficiently large to contain at once all that may be required. These facts are readily explained by considering that the action of the heat retained by the silver vessel so far exhausts the herb as to leave very little soluble substance for a second infusion; whereas the reduced temperature of the water in the earthenware pot, by extracting only a small proportion at first, leaves some soluble matter for the action of a subsequent infusion. The reason for pouring boiling water into the teapot before the infusion is made is, that the vessel being previously warm may abstract less heat from the mixture, and thus admit a more powerful action. Neither is it difficult to explain the fact why the infusion of tea is stronger if only a small quantity of boiling water be first used, and more be added some time afterwards; for if we consider that only the water immediately in contact with the herb can act upon it, and that it cools very rapidly, and especially in earthenware vessels, it is clear that the effect will be greater where the heat is kept up by additions of boiling water, than where the vessel is filled at once, and the fluid suffered gradually to cool. When the infusion has once been completed, it is found that any other addition of the herb only affords a very small increase in the strength, the water having cooled much below the boiling point, and consequently acting very slightly.

962. Chocolate.—Roasted cacao or chocolate beans or nuts, made into a paste by trituration, in a heated mortar, with sugar and aromatics. It is poured into tin moulds in a semi-fluid state, and left until cold. In this form it is called cake chocolate, or *chocolate paste*. When these lumps are reduced to coarse powder, by grinding, it is known under the name of *chocolate powder*. The chocolate commonly sold in this country is prepared from the cake left after the expression of the oil, and this is frequently mixed with the roasted seeds of ground peas, and maize or potatoe flour, to which a sufficient quantity of inferior brown sugar or treacle and mutton suet is added to make it adhere together. Chocolate should never be made for the table before it is wanted, because heating it a second time injures the flavor, destroys the froth, and separates the body of the chocolate, the oil of the nut being observed after a few minutes boiling, or even standing long by the fire, to rise to the top. This is one of the principal reasons why chocolate offends the stomach. *Chocolate for the table* is prepared by scraping the chocolate fine (from one to two squares to a pint, to suit the stomach), throwing it into boiling milk and water, and milling it well. It is served up with the froth. The sugar may either be put in with the scraped chocolate or added afterwards, at pleasure.

963. Food and Drink for the Sick.—All food offered to invalids should be daintily prepared, and presented in the most careful manner. How often, when we have been longing for food, have we turned from it with disgust, because we had seen the nurse cool it with her breath, or taste it, and then drop the spoon back into it, and present it to us! Nor is it well to inquire of invalids what shall be got for them. If they express a wish for some particular thing, well and good, let it be got for them, if reasonable; but a trifling delicacy unexpectedly brought, will often tempt the appetite; besides, a sick person, or even a convalescent, is often too languid to be at the trouble of thinking about eating, and would sooner go without; or, if he or she choose something, it may be the very thing which would be improper or prejudicial, and then comes disappointment, and a species of disgust of all else, for in illness the appetite is ever capricious. These receipts will enable the watchful attendant to vary the food, as choice or

symptoms may render expedient. Jellies and meat broths, together with the various kinds of farinaceous food, are the lightest on the stomach as well as generally the most nutritious for an invalid. Food that the stomach can digest without distressing the patient is the kind that gives actual strength.

964. Beef Tea.—Cut a pound of fresh lean beef into shreds, put it into a stewpan, or what is better, a stone crock, with a quart of cold water; set it over the fire and allow it to boil for five or ten minutes. Strain it through muslin, pressing the meat well to extract all the essence. Season with a little salt.

965. Essence of Beef.—Put a pound of lean beef, cut fine, into a wide mouthed bottle; cork it lightly, place it in a pot of cold water, and allow the pot to boil for three or four hours. Season to taste. This is often given cold, but in doing so, care should be taken, to remove every particle of scum from the surface of the liquid, before offering it to the patient. It may be given to infants.

966. Beef with Wine.—Mince half a pound of fresh lean beef (raw) as fine as it is possible to make it; sprinkle a little salt over it; and pour on it a pint of sherry, or port wine. If desired a tablespoonful of whiskey, or a little lemon juice may be added. This may be eaten with wafer or cream biscuit; or the juice may be expressed, and taken instead of beef tea. It should be made fresh every day.

967. Beef-steak.—Our own experience teaches, that the best method of preparing beef-steak, in small quantity, for the sick, is to toast a thin slice of it before the fire, as you would bread. Do not season it until it is toasted, or broiled; then sprinkle it lightly with salt and pepper, and lay on it a little fresh butter. The fire should be clear, and the meat fresh. Serve on a hot plate.

968. Broth.—When properly made, with a requisite proportion of the various ingredients, and without fat, it is a nutritious article of diet, and may supply the place of both meat and drink; but when taken to any extent, bread should be eaten with it, otherwise it is apt to disagree with the stomach. When broths are made for the sick, they should be varied in strength, according to the state of the patient. Light broths agree with weak stomachs; mutton is reckoned the best ingredient on these occasions; chicken next. In cases of diarrhœa, broth in excess is apt to increase the nausea, but it is at the same time extremely beneficial, if properly managed and administered; in such cases it is best made from veal or fowl, and thickened with rice, which may be strained off, and it must be given in small quantities only at a time. Broth is best made by putting the article from which it is to be formed, into the quantity of cold water requisite, and keeping the whole at a heat somewhat short of boiling for many hours; it should then be allowed to cool, and the fat skimmed off. The following rules will also be found of essential service in making broth. 1. Procure wholesome meat, properly killed. 2. Earthen vessels are preferable to those of metal, as a less degree of heat keeps them boiling; and once heated, a few hot cinders will retain as gentle a degree of boiling as may be desired. 3. Use double the quantity of water to the weight of meat. 4. Add a sufficient quantity of common salt, to facilitate the separation of the blood and slime that coagulate under the form of scum. 5. In the early stage of the process sustain such a degree of heat as will throw off the whole scum. 6. Afterwards a lower, but an equable temperature, that the broth may simmer gently till the substances employed, whether nutritive, coloring, or flavoring, are perfectly combined with the water, according to the several degrees of solubility.

969. Mutton Broth.—Boil a pound of lean mutton in a quart of water, keeping the stewpan covered, until it falls to pieces; then pour off

the liquid, add a tablespoonful of pearl barley, and allow it to simmer for half an hour. Skim it, and season with pepper and salt. If it is desired to have the broth entirely free from fat, lay a clean piece of blotting paper on it and it will take up every particle. *Another method* is to cork the narrow end of a funnel: pour the broth into it, and let it stand for a few minutes, when the fat will rise to the top; then remove the cork and draw off as much of the broth as is wanted. Beef and veal broths are made in the same way, substituting the meats named.

970. Calf's Feet Broth.—Boil two calf's feet, two ounces of veal, and two of beef, the bottom of a penny loaf, two or three blades of mace, half a nutmeg sliced, and a little salt, in three quarts of water, to three pints; strain, and take off the fat.

971. Chicken Broth.—May be made of any young fowl, which is afterwards to be brought to table; but the best sort is to be procured from an old cock or hen, which is to be stewed down to bits, with a couple of onions, seasoned with salt and a little whole pepper; skim and strain it.

972. A Weaker Kind.—After taking off the skin and rump, put the body and legs of a fowl, from the white meat of which chicken panada has been made, into the water it was boiled in, with one blade of mace, one slice of onion, and ten white peppercorns. Simmer till the broth be of a pleasant flavor.

973. Strengthening Jelly.—Simmer in two quarts of soft water, one ounce of pearl barley, one ounce of sago, one ounce of rice, till reduced to one quart; take a teacupful in milk, morning, noon, and night.

974. To Make Panada in Five Minutes.—Set a little water on the fire with some sugar and a scrape of nutmeg and lemon-peel; meanwhile grate some crumbs of bread. The moment the mixture boils up, keeping it still on the fire, put the crumbs in, and let it boil as fast as it can. When of a proper thickness to drink, take it off.

975. Chicken Panada.—Boil a chicken, till about three parts ready, in a quart of water; take off the skin, cut the white meat off when cold, and put into a marble mortar; pound it to a paste with a little of the water it was boiled in, season with salt, a grate of nutmeg, and the least bit of lemon-peel. Boil gently for a few minutes to the consistency you like; it should be such as you can drink, though tolerably thick. This conveys great nourishment in a small compass.

976. Sippets.—When the stomach will not receive meat, sippets are very nutritious, and prepared in this simple manner: On an extremely hot plate, put two or three sippets (small square pieces) of bread, and pour over them some gravy, from beef, mutton, or veal, with which no butter has been mixed. Sprinkle a little salt over.

977. Sago Milk.—Soak one ounce of sago in cold water for an hour, pour off this water and add a pint and a half of milk; boil slowly until the sago is well incorporated with the milk: sugar and nutmeg may be added as required. These sago drinks are nutritious, light, easily digested, and are peculiarly adapted for persons whose stomachs are in an irritable state, as no substance is more bland and soothing.

978. Arrow-root.—Boil half a pint of water, and add to it while boiling, a dessert-spoonful of arrow-root, that has been rubbed smooth, with two tablespoonfuls of cold water. Stir until it becomes clear; add a teaspoonful of sugar, and the same quantity of lemon juice, or a little extract of lemon. Wet a dish in cold water, pour in the arrow-root, and when cold, turn out and serve with cream and sugar. When milk may be taken, it is delicious made in the same way with milk instead of water; but care must be taken that it does not burn.

979. Rice Milk.—Wash the rice, and pick out the black parts. If milk

be plentiful, it may be boiled in milk, if not, boil it in water to plump and soften it, and when the water is wasted put in the milk; take care that the rice in thickening does not adhere to the saucepan. Season with sugar and a bit of cinnamon boiled in milk.

980. Rice Gruel.—Wash and boil a quarter of a pound of rice in a quart of water for three or four hours. Strain the gruel away from the rice, and put it in a cool place. When wanted for use, take half a cupful of it, and warm it with an equal quantity of milk. Add a little white sugar. This is very useful in cases of relaxed bowels.

981. Eggs.—An egg broken into a cup of tea, or beaten and mixed with a basin of milk, makes a breakfast more supporting than tea alone. An egg divided, and the yolk and white beaten separately, will afford two very wholesome draughts, and prove lighter than when taken together. Eggs very little boiled, or poached, taken in small quantities, convey much nourishment; the yolk only, when dressed, should be eaten by invalids.

982. Egg and Milk.—Beat a yolk very light, add it to a tumbler three-fourths full of milk, beat until it foams, add sugar and flavor; a little port wine may be added if desirable.

983. Egg and Toast.—Poach the egg, but do not let it remain in the water longer than is necessary to congeal the white; toast a slice of bread; dip it in hot water a little salted and lay on it the egg.

984. Egg Nogg.—Beat up separately the yolk and white of an egg; fill a tumbler two-thirds full of good rich milk; sweeten to taste; stir in the yolk, then add one or two tablespoonfuls of good whiskey, and lastly the beaten white. Ice may be added if desired.

985. Wine Whey.—Put a pint of milk into a saucepan, and the moment it boils, add half a pint of wine; allow it to boil up again, and remove it from the fire. Pour off the whey, sweeten to taste, and add a little nutmeg or cinnamon. It may be taken hot or cold.

986. Coffee Milk.—Boil a dessert-spoonful of coffee in about a pint of milk for a quarter of an hour; clear it; let it boil a few minutes, and set it on the side of the fire to fine. Sweeten to taste.

987. Lemonade.—Squeeze the juice from half a lemon; then put in the rind, and a tablespoonful of sugar. Fill the tumbler two-thirds full of water; stir until the sugar is dissolved, and fill up with pounded ice. It may be sucked through a straw, or glass tube.

988. Orangeade.—Orangeade is made in the same way, substituting orange for lemon.

989. Flaxseed Tea.—Steep two tablespoonfuls of whole flaxseed in a pint of boiling water for two hours; pour off, and add the juice of a lemon, and sugar to taste. Drink when cold. If desired it may be iced.

990. Porter Sangaree.—Take equal quantities of porter, or brown stout, and water; sweeten to taste, and grate a little nutmeg over it. It should be iced in summer. This drink may be given with advantage to invalids, when, from any cause, spirits disagree.

991. Barley Water.—Wash two ounces of pearl barley thoroughly, and boil it for a few minutes in half a pint of water; then strain the water off, throw it away, and boil the barley in two quarts of fresh water until it is reduced to one quart; strain, and add lemon-juice and sugar to taste. This decoction is extremely nutritious and soothing in cases of fever, inflammatory diseases, pulmonary complaints, colds, coughs, etc.

992. Barley Negus.—One pint of barley water, half a pint of wine, a tablespoonful of lemon juice, nutmeg and sugar to suit the taste.

993. Apple Water.—Cut four large apples into slices, put them into a jug, and pour a quart of boiling

water over them, cover the jug; and when quite cool, strain and sweeten, and flavor with lemon-juice.

994. Sage Tea.—Dried leaves of sage, half an ounce; boiling water, one quart. Infuse for half an hour, and strain, add sugar and lemon-juice as required by the patient. Balm and other herb teas are made in the same manner.

995. Flour Caudle.—Mix, smoothly, a tablespoonful of flour with a gill of water; set on the fire in a saucepan a gill of new milk, sweeten it, and, when it boils, add the flour and water; simmer and stir them together for a quarter of an hour.

996. Tapioca Milk.—Soak an ounce of tapioca in a pint of cold water for half an hour, pour off the water, and add a pint and a half of good milk; boil slowly until the tapioca is dissolved, then add sugar, nutmeg, and a little white wine, if not prohibited by the medical attendant.

997. Tamarind Drink.—Boil three pints of water with an ounce and a half of tamarinds, three ounces of currants, and two ounces of stoned raisins, till about a third has evaporated. Strain; add a bit of lemon-peel, which is to be removed in half an hour, then cool.

998. Oatmeal Porridge.—Stir four tablespoonfuls of oatmeal, smoothly, into a quart of milk, then stir it quickly into a quart of boiling water, and boil it for a few minutes till it thickens; sweeten with sugar.

999. Parlor Games.—It is difficult to describe in print the various amusements known as "Parlor Games." We intend, however, to give a sufficient number, to afford a merry evening wherever they may be adopted.

1000. Acting Charades.—A drawing-room entertainment both amusing and intellectual, in which any of the guests may become actors. For these performances a room with folding doors is the most suitable. At the further end of the room something like a stage is erected, with appropriate scenery contrived from various household appliances. Characters dressed in costumes made up of handkerchiefs, coats, shawls, table covers, etc., then come on and perform an extempore play. This play is devised from a word of two or more syllables, each syllable expressing some familiar object, and the action and dialogue of the play are so ordered as to illustrate the *parts* of a word, and its *whole*.

By way of illustration, suppose that the word selected is *Band-age*. For the performance of this we may conceive the following characters:—Sir Anteek Yellowleaf, a rich old merchant from India; Lillie and Olivia, his nieces; Brown, Jones, and Robinson, their friends. The first scene represents a drawing-room, and Lillie and Olivia are discovered seated at table; they then enter into conversation, the gist of which is that they intend that night serenading their uncle Sir Anteek, with the "waits," in celebration of his return to his native country, after an absence of fifty years. While thus discoursing, enter their three friends, Brown, Jones, and Robinson, dressed as street performers, and bringing in music-books and instruments (or where real instruments cannot be procured, suitable imitations of the voice may be substituted); the plan of serenading is then concerted, the performers go off to carry out the scheme, the young ladies retire, and the scene closes, having thus represented the word *Band*. *Scene* 2 represents an ante-room with a door at the back made to open and shut. *Enter* Sir Anteek Yellowleaf as from a bedroom attired in dressing-gown, night-cap, and slippers, and carrying a chamber-candlestick. Sir Anteek appears very irritable, declares that the noise is so great that he cannot get a wink of sleep; and after denouncing everything and everybody, returns to his room. Lillie and Olivia then peep on from opposite corners, and stealthily

approaeh. Sir Anteek disturbed by their footsteps, again eomes out, and while he is doing so Olivia and Lillie steal off. Sir Anteek returns again to his room in a fury. At this juncture music is heard from without, faintly at first, and gradually louder; whereupon Sir Anteek rushes out in a great passion, with a water jug; after venting some of his spleen, he goes off at side; a crash is heard; the music ceases; and Sir Anteek returns looking pale and angry, thus representing the word *Age*. *Scene closes*. *Scene* 3 represents a breakfast parlor. Lillie and Olivia seated, and a vacant arm chair near the table; after a short conversation between the nieces, the uncle enters, who appears to be dreadfully alarmed by the supposition that in throwing the water jug out of the window he has sacrificed some person's life; while in this dilemina the servant enters, and announces the arrival of Messrs. Brown, Jones, and Robinson, who come on in their usual attire; but Brown has his head enveloped in a cloth,. and is supported by his two friends; an explanation then ensues. Brown intimates that he is only slightly bruised, Sir Anteek apologizes; they all shake hands, and the end of this scene and the charade are both brought about. Having thus illustrated the word "Band-age," *it now remains for the company to guess it.*

1001. Words.—The following is a limited list of words adapted for acting charades.—

Aid-less	Bar-gain
Air-pump	Cab-in
Ale-house	Can-did
Ann-ounee	Can-ton
Arm-let	Care-ful
Art-less	Drug-get
Bag-pipe	Duck-ling
Bag-dad	Ear-ring
Bail-able	Earth-quake
Bale-ful	Ear-wig
Band-age	False-hood
Band-box	Fan-atie
Bane-ful	Fare-well
Bar-bed	Ground-plot
Ground-sel	Mis-quote
Guard-ship	Moon-light
Gun-powder	Moon-beam
Hail-stone	Muf-fin
Hail-storm	Name-sake
Half-penny	Nan-keen
Ire-ful	Nap-kin
Iron-mould	Neck-lace
I-sing-lass	Neck-cloth
Joy-ful	Out-weigh
Joy-less	Out-wit
Key-stone.	Out-work
Kid-nap	Post-office
King-craft	Pot-ash
King-fisher	Pot-hook.
Mis-judge	

1002. Stir the Batter.—If seven players are obtainable, place six chairs around the room and remove the next—all being seated, except one whom we will call Fanny. She stands in the centre with a stick in her hand, and affects to stir the carpet, saying "Stir the Batter; keep it stirred." After stirring for a few moments, all of a sudden she taps the floor thrice and throws down the stick. At this signal, the six players who are seated have to jump up and exchange chairs. While doing this it is Fanny's cue to reach one of the chairs before it is re-occupied. If she succeeds—the one left without a seat has to "Stir the Batter." Failing, she has to do so once more, in the hope of better fortune next time.

1003. Hot Boiled Beans and Butter.—Anything, such as a key, a ball, or a piece of ribbon, may be selected and called "Hot boiled Beans and Butter;" this is deposited in the hands of the one who begins the game; the rest leave the room, or hide their faces; the first player then conceals the dainty in such a way that the aeutest intellect could seareely guess in what direetion to look for it. The game now is for the other players to find it. They are summoned to the feast with the call of "Hot boiled Beans and Butter "—but are first to discover where they are hidden. As the thing hidden is approached by the

searchers the hider calls out to encourage them, "Hot! hot! very hot!" As they stray from the right spot he calls "Cold! cold! you freeze!" When the thing is found, the finder becomes the possessor, and has next to hide it.

1004. The Art Gallery.—This piece of harmless deception is sometimes practised at fairs, etc., when the proceeds are devoted to some charitable object in which all are interested. The following Catalogue will enable any one, with a little ingenuity, to arrange a gallery in a short time.

ART GALLERY CATALOGUE.

(*Those marked with a * are for sale.*)

The Last of St. Crispin* .....Wood
A Bridal Scene.....S. T. Able
Village on the Rhine.....Limburgh
Mill on the Floss .....Kauphphy
The Flower of the Family.....Saxe
Study of Fish (In Oil).....S. Ardine
Things to Adore*.....H. Ware
The Castaways.....Not Known
The Destroyer* .....Costar
Mustered In, { Companion } .....Potts
Mustered Out, { Pieces }
Monument of Greece.....P. Dipps
View of the Red Sea and Plains Beyond.
The Skeleton in Every House*...Steele
Figures in Repose—contradicting old adage that "*figures won't lie.*"
Reflection—copy.....M. Irrour
View of Cork.....Yours Truly
Ashes of the Great.....B. Cole
View of China
Marble Group.....Nickers
A Drive Through the Wood
Family Jars.

ADMISSION TO GALLERY.....10 CENTS.

1005. The Dutch Concert.—This game will do to follow one in which the players stand, as the parties here sit down. Each person makes a selection of an instrument—say one takes a flute, another a drum, a third the trombone, a fourth the piano, and each person must imitate in the best way he can the sound of the instrument, and the motions of the player. The leader of the band, commencing with his instrument, all the others follow, tuning some popular air, such as "Pop goes the Weasel," "Bobbing around," "In the Days when we went Gipseying," or any other air. The fun consists in this, that the leader may take any instrument from either of the players, who must watch the leader, and take the instrument which he was previously playing. *If he fails to do so, he pays forfeit.* Or if he makes a mistake, and takes the wrong instrument, he pays forfeit. Suppose A to be the leader, playing the violin, and B to be one of the band, playing the trombone. Directly A ceases to play the violin and imitates the trombone, B must cease the trombone, and imitate the violin, and immediately A returns to the violin, B must take the trombone, or whatever other instrument A was playing the moment before he took the violin. If he makes a mistake he pays forfeit.

1006. Twirl the Trencher (*Forfeit Game*).—A wooden platter, or a plate is brought in, and given to a person who is to be the leader. The leader then takes a name himself, and gives a name to each of the company. Numbers will do, or the Christian, or familiar names by which they are usually known, or the name of animals or flowers may be adopted. Each person must be sharp enough to remember his or her name directly it is mentioned. Each person has a chair, and a large circle (the larger the better) is formed around the plate. The leader then gives the plate a spin, and calls out the name of the person who is to catch it. Leader then runs to his seat, leaving the plate spinning, and when the person named fails to catch the plate before it has done spinning, he or she must pay a forfeit, which must be held until all the players have forfeited. A little stratagem should be employed by looking towards one person, and then calling out the name of another quite unexpectedly. Nobody should demur to pay a forfeit if fairly fined, and each person should remember his own forfeits.

1007. Jumping up to the Ceiling.—Perhaps there is no game more mystifying than this, or one which may, if well managed, cause more laughter. A sheet is stretched across the folding doors separating the apartments. All the lights must be removed from that in which the spectators are, and the arrangement in the room which forms the stage for the actors must be as follows: Near the opposite end of the room place three boxes, arranged as *steps*, upon the second step a strong light should be placed; and, if there is no side door through which the actors can enter, a dark quilt can be used as a curtain to screen the actors, and enable them to enter near the sheet. At first, as he is close to the sheet, the shadow will be only life-size; and it will depend upon the skill of the performer to make the shadow comical and diverting. But as he recedes from the sheet and approaches the light, his shadow will increase in size, so that when close to the light it will assume gigantic proportions. The leap into the clouds is then easily effected. Standing upon the first step, he springs over the light on to the third step, and to the spectators in the darkened apartment he will appear to have jumped through the ceiling.

1008. That Reminds Me.—It is important to blend with our amusements the sources of instruction, and of elevated thought, provided that these can be secured without so far interfering with the entertainment as to make it partake of the character of a study, rather than a pastime. In the play which we are about to propose, we think the two elements of entertainment and instruction are so evenly blended, that the game will be found both pleasant and profitable. We will suppose that there are eight persons seated round a table:

Mr. A. names an object, such as a Piece of Coal, and says, "*That reminds me* of the fire"—

Mr. B. "And the social cup of tea."

Mrs. C. "And of China whence it comes."

Mr. D. "And of Canton where the war is."

Mrs. E. "And of the poor who have no fire."

Mrs. F. "And of the workers in the mines."

Mrs. G. "Who often die by sad explosions."

Mrs. H. "Caused by the gas of coal."

Mr. A. "Which Davy lamps would have prevented."

[It has now come round to Mr. B., who as Mr. A. commenced, has the option of starting a fresh subject, or continuing that of coal. He therefore uses the words "That reminds me," thus—]

Mr. B. "*That reminds me* of Sir Humphrey Davy."

Mrs. C. "Who took much pains to prevent explosions."

Mrs. D. "By making lamps of wire gauze."

Mrs. E. "Through which the flame will not ignite the gas."

Mr. F. "Gas lights our street."

Mrs. G. "Inflates balloons."

Mrs. H. "Is used for heat and cookery."

Mr. A. "And all our towns look lit with stars."

Mrs. B. "When from a distance viewed."

Mrs. C. (who has now the option of continuing the subject, or changing it, says), Iron—"*That reminds me* of the wonders wrought by coal."

Mrs. D. "And of steam."

Mrs. E. "They form the trinity of progress."

Mr. F. "They cleave the ocean."

Mrs. H. "They defy the winds."

Mr. A. "They're swifter than the hound."

Mrs. B. "They're grand in peace, and terrible in war."

In this way every conceivable subject may be made the theme of an instructive pastime. Each person is required to say only *one* sentence, or to state only *one* fact. It will frequently happen that there will be opportunities for the livelier spirits of the company to offer a joke, such as might have been given respecting the habit of ladies gossiping over their tea-cups,

etc. An hour devoted to this exercise would, we are sure, be agreeably spent, and would serve very materially to quicken the faculties, and enlarge the information of all who took part in it.

1009. Do as I Do.—This is sometimes called the German exercise. The company stand in a row or semicircle, and one is selected as a leader. When all are ready the captain stands in front and calls "Attention." "Do as I do." Every eye must be riveted upon the leader, whose actions, whether of eye, hand, or whole body must be exactly imitated. The leader then does something odd or unexpected; such as sneezing, wagging the head, gaping, beating time, or whatever suggests itself. The rest do the same simultaneously, and the effect is very comical if the leader is ingenious and the players good mimics. After a time the leader says, "Present arms," at this command each player drops on the left knee, and stretches out the right arm towards the captain. The next command is "Fire." The captain, at this word, gives the player nearest her a push, sufficient to upset, without hurting her, and each player pushes her neighbor, until all are thrown down sideways upon the grass or carpet.

1010. I had a Little Basket.—This is a fireside game, and may be played by the very youngest. One of the circle begins, turning to his neighbor, with the words, "I had a little basket." The party addressed asks, "What was in it?" To which the first speaker replies with the name of anything beginning with A, and consisting of one word only, as "Apricots." The second in turn then addresses the third with, "I had a little basket," and upon being asked "What was in it?" replies, "Bullets," or "Broccoli," or anything else, the first letter of which is B; and thus the game goes round until the alphabet has been exhausted. Much fun is caused by the oddity of the articles said to have been in the basket: as crocodiles, dumplings, elephants, pigs, etc., etc.

1011. Think of a Number.—A considerable amount of amusing mystification is caused by this game. One, in possession of the secret, proposes to one who is not, to "think of a number" in his own mind. Any number, large or small, will do. He must not say what number it is, but must bear it in mind, and if he prefers it he may write it down upon a slate, carefully concealing from view what he has written. The proposer then says, "Double it." This being done, he is next told to add six, or ten, or any other number the proposer chooses, to it. The party to be mystified is then bid to halve it—*i. e.*, to halve the whole sum. This being done, he is told to subtract from it the number he first thought of. Having done so, the proposer, to the wonder of all not in the secret, declares how many remains.

[By means of this puzzle, which is one of the simplest in the world, we have frequently seen a whole room full of people put into a most ludicrous state of fidget, under the impression that there was some witchcraft at work.]

Solution.—Suppose the number thought of to be five—that doubled would be ten; suppose eight are added, that makes eighteen. The half of this would be nine. Five, the number first thought of, being substracted from this would leave four. Accordingly, "Four" would be the answer. But why? Because the answer is always *the half of the number added to the sum.* A little consideration will make this clear. The number thought of is first doubled; then halved; and finally *taken away entirely;* so that only half of the number added can possibly remain.

1012. Consequences.—This may be made a very amusing game. Its essence consists in the fun elicited by certain consequences or results said to follow certain other actions. Three, six, nine, or any larger number may

play at it. Proceed as follows:—Procure a few dozen plain cards, or pieces of card-board or stiff paper, and upon one dozen write legibly the names either of your acquaintances, or, which is better, any imaginary personages. Upon twelve other slips write any action, as—"went for a walk,"—"took a short nap," etc. Upon a third set the "Consequences" have to be written. And here an opportunity is given for the exercise of the inventive faculties. When a sufficient number of cards or slips are written, the three sorts should be placed in three baskets or hats, and shaken up. Of course it is understood that the names are in one hat or basket, the actions in a second, and the consequences in a third. Either one player may take a basket to deal, or partners may do so. The slips being shuffled, the first player dips his or her hand into the basket, and drawing out a card reads it aloud. The second player then does the same, and the third player drawing a card proceeds to read it—prefacing what is upon the card—the consequence—by saying "the consequence was"—so and so.

1013. The Wolf and the Sheep.—The players are ranged in a row; one has to stand in front, who feigns to be the shepherd, but is in reality the wolf. The make-believe shepherd commences by saying,—"Sheep, sheep, off to the fields!" The sheep reply, either altogether, or by the mouth of one who speaks for the rest,—"Oh! but we are afraid!" The wolf in disguise then asks—"What do you fear?" The sheep cry in chorus—"The wolf! the wolf!" The wolf then says—

> "The wolf has gone to Devonshire,
> It wont be back for seven years.
> Sheep! sheep! off to the fields!"

The sheep then run out, and it is the object of the wolf to catch any one of them before it returns to the fold. The sheep caught is wolf next game.

1014. Puss in the Corner.—This is an easy game, but it affords a great deal of amusement, and is very suitable for the winter season. It is played by five only; and the place chosen for the game should be either a square court, or any open space between trees, four of which about equidistant from each other, should be selected and marked in some way as homes. Each of the corners is occupied by one of the players; the fifth, who is named "puss," stands in the centre. The game now commences; the players calling out to each other, "Puss! puss! give me a drop of water," endeavor to exchange corners. It is the object of the one who enacts "puss" to take possession of any one of the corners during the momentary absence of its occupant, *i. e.*, during the exchanges. When he succeeds in doing this, that player who is left without a corner becomes the "puss." N. B.—In the case of A and B exchanging corners, if A reaches B's corner, but B fails to reach A's before "puss" gets there, it is B, not A, who becomes "puss."

1015. Beast, Bird and Fish.—After the players are seated and numbered, it must be explained that the person whose number is called will be expected to name a beast, bird, or fish, as requested; before the caller can count ten—but she must not say *cat, catbird,* or *catfish.* Suppose there are four players; number one may call out, three, beast, and then count ten as fast as she can; and number three must give the name of a beast before the caller is done counting. If she succeeds, it is then her privilege to call the number; if not, she must pay a forfeit. If preferred, the forfeits may be dispensed with, and the calling go round in the order in which the players are numbered. We have known this simple play to amuse a family of little ones, one or two evenings a week, during an entire winter.

1016. Tee-to-tum.— A tee-to-tum is easily made—they are procurable at any toy-shop or turnery warehouse for a mere trifle, but the best

way is always, if possible, to make your own toys. Take a piece of hard wood (box, for instance), or a bit of ivory or bone, and make of it a hexagonal figure of about three-quarters of an inch in depth, and an inch and a quarter across; upon each of the six sides, which should be nicely smoothed, mark the numbers you chose, such as 1, 6, 3, 4, 2, and blank. Exactly in the centre pierce a hole for the insertion of the handle and peg. These you may make as ornamental as you please. Then spin. The side which falls uppermost when the tee-to-tum has exhausted its motive power, and tumbles to earth, is scored to the spinner, and the next player takes his turn. Any number above twelve may be game. The first that scores twelve wins. There is another way of using the tee-to-tum. It may be made a comical fortune-teller. Upon the six sides you write as many various fates, or fortunes, as death, woe, want, delight, drivelling, ease, penury; or characters, as brave, cowardly, proud, silly, good, dummy. The result of a good spin is of course supposed to indicate perfectly the fortune, or character of the spinner.

1017. Cork, Cardboard, or Pith Dancers.—Famous fun may be extracted from the fabrication of little figures—of sailors, the old conventional, T. P. Cooke,—Highlanders, or dancing dervishes. A little ingenuity is alone necessary. You cut the head and bust of the desired figure out of the upper part of the cork, pasteboard, or pith, mark out the features and dress, painting them with the ordinary water colors; into the sides you insert a pair of arms, and for legs procure four stout hog's bristles, and place them at the four angles of the lower part of the figure. The figure then is to be set on the sounding-board of a piano-forte, and a lively tune struck up, when your sailor, dervish, or Highlander, will dance a most original step, and prove most diverting, if the figures are properly made.

1018. Catch the Ring.—A good game to follow the preceding one, is catch the ring, as the company will have the opportunity of sitting down. The chairs are placed in a circle, just so far apart, that each person sitting can easily reach the hand of another person on either side of him. One person stands in the middle of the circle. A piece of string with a wedding, or a larger ring of brass, upon it, is then tied, of a sufficient length to reach all round the circle, so that each person may catch hold of it. The players are then to slide the ring along the string, passing it from one to the other, and the game is, for the person who stands in the centre to try to catch the ring. When he catches it, the person with whom he finds it is to go into the centre.

[Forfeits may be added to this game, if preferred, each person caught with the ring paying forfeit.]

1019. Blind Man's Buff.—This is a lively game, very well known, and one that will do very well to follow "Catch the Ring," during which the company sat down. One of the company is blindfolded, and must then endeavor to catch another of the company, who is then to be blindfolded, and so on in turn. It is usual to induct the blindfolded person by some such process as the following. He is led into the centre of the room, and some one addressing him, while the company stand up round him, says:—

"How many horses has your father got?"

He answers, "Three!"

"What color are they?"

He replies, "Black, White, and Grey!"

"Then turn about and catch whom you may!"

The fun then begins, and everybody must look out for himself. When any one is caught, all the company keep immediate silence, and the blindfolded person is to call out the name of his prisoner. If he makes a mistake, the

prisoner must be liberated, and the sport recommenced.

[This is a capital game, if played with moderation, and in a right spirit. There should be no unpleasant tricks played upon the blindman, and everybody should take a share in the risk of being caught.]

1020. Forfeits.—Here are some good forfeits to be used in connection with the following games:—

i. I'm Blow'd.—Blow a bubble, and catch it on the tip of your nose.

ii. The Teetolaller.—The owner of the forfeit is to be blindfolded, and to be fed with water from a spoon until she guesses who is feeding her.

iii. Collins' Ode.—Give illustration of the passions, by holding a candle or lamp in your hand, and at the bidding of the forfeit-holder, make your face express, in the following order—smiles, tears, laughter, hatred, love, terror.

iv. Goody Two-shoes.—You are requested to take two chairs, and place them back to back. Then take off your shoes and jump over them.

[You will naturally suppose that you are to jump over the CHAIRS, but it is only intended that you shall jump over the SHOES!]

v. The Industrious Apprentice.—This is performed in the following way. The owner of the forfeit is asked what situation he will take. Perhaps he will say a carpenter. Then ask him how he will plane, and saw, and chisel, and hammer, etc., and he must go through all the motions, or he will not be entitled to receive the forfeit. Any trade may be imitated in the same way.

vi. The Adept.—Laugh, then *whistle;* cry, then *whistle;* cough, then *whistle.*

vii. The Naturalist.—Imitate six animals—the dog, the duck, the cuckoo, the crow, the donkey, and *the unicorn!*

[The last is intended as a puzzler.]

viii. The Quiet Lodger.—The person who owns the forfeit may be called upon to choose one or two musical instruments. Having done so, he may be requested to imitate them.

ix. Stoops to Conquer.—Crawl around the room on all fours forwards, your forfeit shall then be laid upon the floor, and you must crawl backwards to it, without seeing where it is placed.

x. The Likeness.—A lady may be called upon to put on a gentleman's hat and give an imitation of the gentleman, or a gentleman may put on a lady's bonnet, etc.

xi. Hit or Miss.—You are to be blindfolded, and turned around two or three times. Then you are to walk towards one of the company, and the handkerchief is to be taken off, that you may see the person you have touched. Then you are to kiss that person, and each *alternate* one all around the room.

[This forfeit, if strictly enforced, will frequently excite roars of laughter.]

xii. The Happy Couple.—Two forfeits may be redeemed by two persons at once. They may be requested to whistle a duet, to dance a *pas de deux*, or to see which can sing Yankee Doodle (or any other air, *with words*) the most rapidly.

xiii. The Egotist.—Propose your own health in a complimentary speech, and sing the musical honors.

xiv. Dot and Carry One.—Hold one ankle in one hand, and walk round the room.

[This is suited only to gentlemen.]

xv. Sing one line of four different songs without pausing between them.

It would be well to find four lines that afford humor taken consecutively, such as

"All round my hat,"
"We saw the Frenchman lay;"
"Let us speak of a man as we find him,"
"Down where the aspens quiver!"

xvi. "HOBSON'S CHOICE."—Burn a cork one end, and keep it clean the other. You are then to be blind-folded, and the cork is to be held horizontally to you. You are then to be asked three times which end you will have? If you say "right," then that end of the cork must be passed along your forehead; the cork must then be turned several times, and whichever end you say must next be passed down your nose; and the third time across your cheeks, or chin. You are then to be allowed to see the success of your choice.

[This will afford capital fun, and should be played fairly, to give the person who owns the forfeit a chance of escape. The end of the cork should be thoroughly well burnt. As a joke for Christmas time, this is perfectly allowable; and the damp corner of a towel or handkerchief will set all right. It should be allotted to a gentleman, and one who has a good broad and bare face.]

xvii. POETIC NUMBERS.—Repeat a passage of poetry, counting the words aloud as your proceed, thus: Full (one) many (two) a (three) flower (four) is (five) born (six) to (seven) fade (eight) unseen (nine) and (ten) waste (eleven) its (twelve) sweetness (thirteen) on (fourteen) the (fifteen) desert (sixteen) air (seventeen)! This will prove a great puzzle to many, and afford considerable amusement.

xviii. HUSH-A-BYE BABY.—Yawn until you make several others in the room yawn. This can be done well by one person who can imitate yawning well, and it will afford indescribable mirth. It should be allotted to one of the male sex, with a large mouth and a sombre or heavy appearance, if such a one can be found in the party.

1021. Selling the Forfeits.—These forfeits, it will be seen, have each a separate name and number. Now a good plan would be for a person who is to take an active part in the evening party to read them over during the day, and to become acquainted with them. Then, in allotting the forfeits, when they are called thus:

"HERE'S A PRETTY THING, AND A VERY PRETTY THING, AND WHAT SHALL THE OWNER OF THIS THING DO?"

The person awarding the forfeits may call out "No. 1," "No. 10," "No. 15," or any other number; or may say (which would be more amusing), *"Hush a bye baby!" "Hobson's Choice!" "Dot and Carry One!"* etc. "PLAIN FACTS" may be laid on the table to afford further explanation of the forfeits, or be held in the hand of the person who is holding up the forfeits while they are being cried, and this person can at once explain what is to be done. In this way the redemption of the forfeits will go on freely, without stoppage or hesitation, and a capital evening's amusement be derived.

1022. Magical Amputation.—Have a knife with a gap in the middle of the blade. This gap you will carefully conceal from the company with the fore-finger of the right hand. Then place the knife across your hand or nose, and they will appear to be half cut off.

1023. The Fig-Trick.—Procure three figs, or plums, or any other similar eatable, and having set them upon a table, a short distance apart, put a hat over each. Now tell the company that you mean to eat the three figs, and having done so, will bring them under whichever hat they please. When you have eaten them, desire one of the company to say under which of the hats they shall be. When the hat has been named, take it, and place it upon your head, and say, "There, ladies and gentlemen, the figs are under the hat: have I not performed my promise?"

1024. The Wager.—Desire one of the company to lend you a watch, or brooch, or any other valuable. Suppose it is a watch. You then offer to lay a wager with the owner that she will not say *"my watch,"* three times,

consecutively. (Let the stake laid be considerably less than the value of the watch.) Now, hand her the watch, and ask, "What is this?" She will, of course, reply, "my watch." Present her with something else, as a book, or flower, asking the same question. If she says anything but "my watch," she loses; but if she replies properly, you then add, "I see you are sure to win; but, supposing I lose, what will you give me?" If she replies, "my watch," you then put it into your pocket, and leave her the wager staked.

1025. Creeping into a Half-Pint Pot.—You may preface this deception with a speech, something after the following sort:—"Ladies and gentlemen, the feat I am about to perform was, at one time, thought incredible, unless, indeed, it was understood to be practised by the power of witchcraft. It is, however, very easy, and needs no assistance from witches or wizards. I shall proceed to show you how I do it." You then take the half-pint measure, and place it upon the floor, in the centre of the apartment. It will add to the effect of the preliminary proceedings if you walk twice or thrice round the measure, and mumble some such words as—

"Hiccius, Doctius,
Propria quæ Maribus;
Bingo Bungo,
Fau! Fo! Fum!
Exeat, Valkeri!
Etc., etc., etc.

Then go outside the door, and creeping into the room upon all-hours, say, "Ladies and gentlemen, this is creeping *in to* a half-pint pot," which nobody can deny.

1026. The Magic Circle.—Proclaim to the company that, by means of your tremendous powers of dexterity, you can place any person in the middle of the room and draw a circle round him, out of which it will be impossible for him to move, use as much exertion as he may, without first partially undressing himself. There will be a general incredulity expressed, but with a most composed countenance you will invite one to try the experiment. Make this person now stand in the centre of the room—put a bandage about his eyes; button his coat; then with a piece of chalk draw a circle round his waist outside the garment. Upon uncovering his eyes and pointing to the circle it will be evident to him that he cannot get out of the circle without partially undressing himself.

1027. The Phenomenon of all Phenomena.—Hold a nut in your closed hand towards the spectators, letting them see just a small portion of it, but not enough for them to detect what it is, and then tell them that you have it in your power to exhibit to them what they have never seen, what you have never seen, what no one else has ever seen, and what, when you and they have once seen, no one else shall ever see. Desire them to guess what this wonder may be, and when they have exhausted their ingenuity, crack the nut, show them the kernel, then put it into your mouth, and having swallowed it, ask them if you have not performed your promise.

1028. Egg-hat.—The players select a wall, and against the foot of the same place their hats or caps in a row. One then commences throwing from a prescribed distance the ball into any of the hats he may select. The player into whose hat the ball is pitched has to snatch out the ball from his hat, while the rest take to their heels and run. Standing by his hat, he then aims at the boy who is nearest, or presents the fairest mark for his ball. Failing to hit any one, the aimer is disgraced and scores a bad mark, which is usually a small stone thrown into his hat. When the player has three of these stones in his hat, he is made to stand out, and await his punishment. The game is thus repeated. The player who is longest in may, at the end of the game, punish the others by aiming the ball at their open palm set against the wall.

1029. Tom Tiddler's Ground.—A line is drawn on the ground or floor, or any mark, sueh as the edge of the pavement, or grass-plot, is ehosen for the boundary of Tom Tiddler's ground. This Tom Tiddler is supposed to be an ogre, of an exclusive, or eross-grained temper, and very "tenacious" of his rights of property. The players, one by one, venture over the boundary, calling out, as they do so, "Here I am on Tom Tiddler's ground, picking up gold and silver." The moment any one passes the boundary, Tom Tiddler rushes forward to touch the intruder. If he sueeeeds in doing so before said intruder repasses the line, that one takes the plaee of Tom Tiddler. The game may be made very lively by good players. Several intruders at onee are seen rushing about, and Tom will have his work to do to eateh them if they are nimble, and by the rules of the game he is forbidden to eross the line in order to do so. At the commencement of the game, it is usual to eleet the first Tom Tiddler by some sueh plan as the following:—The players stand in a ring, and one eounts "one," "two," "three," up to twenty-one, touehing eaeh person as the number is pronouneed; the player who is "twenty-one" is Tom Tiddler: or, standing in a eirele, instead of the mere eounting of twenty-one, these words are said—the counter touehing a player at each syllable:

Eee-ner deen-er diner dust,
Cat-ler whee-ler wyl-er wast,
Spit spot must be done,
Twidd'lum twadd'lum twenty-one.

The player who is touched at the monosyllable "one," is Tom Tiddler.

1030. Skipping-rope.—Skipping is an excellent exereise for girls in the winter seasons, providing that proper eaution be observed. Why it should not do equally well for boys has never been elear to us. It is an exercise that may be taken in-doors, where there are large rooms devoted to nurseries, or sehool-rooms set apart for play. Care should be taken to seleet a good hard and smooth walk for the purpose; not so smooth as to be slippery, and perfectly dry. But it is not well to skip in-doors exeept where there are suitable rooms set apart for play, as the noise and vibration might eause annoyanee to the elders of the family or household. A moderate use of the skipping-rope tends to promote grace in the attitudes and a healthy aetion of the body. Young skippers should avoid such feats as keeping up the aetion while long numbers are eounted, sueh as a hundred, fifty, or even twenty. No good whatever, but a great deal of evil has been the consequence of such praetiee.

1031. Leap-frog.—This is a game exelusively for boys. As the name indieates, the players, in overing the bent baeks of eaeh other, assume the attitude of a frog. Any number, from two to fifty, may join in the game. Having agreed together who shall give the first back, that player proeeeds a few paees forward, and stooping head and shoulder, rests his hands upon his knees, or maintains his position, while the others leap over him, by folding his arms across his breast. The back should be firm and steady, without flinching—as in yielding too mueh to the pressure of the leaper both players are apt to be upset and hurt. As soon as one has eleared the first back, he proceeds to make a baek himself for the next, and the game lasts just as long as the players choose. It is a fine healthy sport, and bracing to the limbs.

1032. Fly the Garter.—This is a little different to leap-frog. A line, ealled "a garter," has to be traeed on the ground, at whieh one of the players makes a baek with his side to the line. The other players then begin overing the back until all of them have done so. The last one, upon alighting, has to ery "foot it," which means that the "baek" has to remove a foot's distance from the garter. The "foot" here alluded to is the measure made by placing the heel of the right foot to

the side of the left, moving the left foot to the toe of the right, and then shifting the right foot, so as to resume the original position. The other players then recommence overing. If any of them fail to go over when they have once placed themselves in position with the hands on the "baek," they are down; or if, in overing, they stand short of the distance—*i. e.*, within the garter, they are down. When all have overed, "back" foots it again, and so on. It should have been previously settled how many feet are the outside limit to be leaped. If all the boys succeed in overing at the proper distance, the first back is still down, and the game has to be played over again at his expense.

1033. Touch.—This is best played in a court-yard, or in some limited space. One is appointed (by lot or otherwise) "touch," and all he has to do is to run after, and touch with his hand—sticks or handkerchiefs are not allowed—any of the others, who then becomes "touch" in his turn. It is sometimes the rule that the person touched shall not immediately retaliate upon the person who caught him. This privilege, however, ceases directly the sport has once again begun.

1034. Whoop.—All the players meet at a spot called "home," and one is selected by lot to be the first to hide. When he has done so to his own satisfaction, he calls out "whoop," and the rest sally forth to find him. Whoever finds him, calls out "whoop," and the hider then rushes forth from his concealment, and endeavors to catch one of the players before he reaches home. The one he succeeds in catching has to carry him home upon his back. It is then the turn of the boy who discovered the first hider to hide himself, and the game recommences as before.

1035. I Spy I.—This is something like the preceding. Sides are chosen, and one party remains at "home," when the rest go and hide themselves. When this is done, a player of the hiding party (appointed specially for the purpose) calls out "warning," and then secretes himself. The other party then sallies out in search of the hiders, and as soon as one is found, the finder cries out "I spy I." But if before this is accomplished two of the out-party succeed in reaching home unperceived, they are entitled to call the rest home by the cry "all home;" and they may go out again, having won the first game. The seeking party must spy out two of the hiding party to entitle themselves to the game.

1036. Christmas.—This festival of the Christian Churches, in commemoration of our Saviour's nativity, is celebrated on the 25th of December. In the United States it is observed by appropriate religious services, family gatherings, friendly parties, and convivial games. The press also lends its aid to render the season interesting. The illustrated papers come out with double numbers, and every newspaper and magazine throughout the country will have its Christmas story, or its Christmas lore, and the "Poet's Corners" will give ample evidence of the reigning influence of "Father Christmas." The custom of decorating churches and private dwellings with evergreens, is descended from the Druids; they believed that sylvan spirits would dwell in the boughs until spring, and protect the house from evil spirits. Holly, ivy, laurel, and the mistletoe were the usual decorations.

1037. Christmas and the Germans.—To dismiss the subject of Christmas without a kind word for our German friends, would, to say the least, be ungrateful. With them originated the idea of giving to every child a Christmas present, which was left at the house by the myth, *Kriss Kringle.* In some parts of Germany it is still the custom for parents to send their presents to some one, who, grotesquely attired, goes from house to house, and after a critical examination of the children, as to their conduct during the year, distributes the presents, as

they suppose, according to merit. To them, also, we are indebted for that pretty toy, which has gladdened the hearts of so many American children, —the Christmas tree.

1033. Kissing under the Mistletoe.—This was the chief amusement of Christmas parties a thousand years ago. The mistletoe was suspended over the entrance to the dancing or banqueting room, and a gentleman was privileged to kiss any lady he found standing under it. A branch of holly, or pine, can do duty for this favorite "Mistletoe bough," so rarely found in this country. Why the mistletoe was adopted as a kissing bush, has never been satisfactorily determined, but Mr. Alfred Crowquill has given a fanciful interpretation of the circumstance in the following lines:

"The winter came, poor Cupid fled,
His wings were wet and dripping;
His bed of roses withered quite,
'Twas so severe and nipping.
He never slipped so oft before,
Though never sure his footing;
His fingers were quite blue with cold,
'Twas useless to try shooting.

"So to Ma Venus off he sped,
Complaining sadly to her
That victims were so scarce on earth—
They never had been fewer.
He told his tale, all drowned in tears
Which froze as they were dropping,
And on his cold and marble cheek
Like pearls of price were stopping.

"Fair Venus seized the precious gift,
And quickly so disposed them,
She into one small fairy branch
Of Mistletoe composed them.
'Let this forever be,' cried she,
'The talisman of misses;
And you'll find victims fast enough,
For your great trap is kisses.'"

1039. Christmas Tree.—A young pine is generally selected for the Christmas tree, and little presents of various kinds are hung upon its branches. These frequently consist of dolls, charms, fancy baskets, bon-bons, toy-watches, sugar-plums, drums, books, work-boxes, paint-boxes, pin-cushions, swords, banners, flags, tops, needle-cases, pen-wipers, real fruit, gloves, collars, games, miniature chairs, bedsteads, tea-sets, etc. The tree should be planted in a shallow box, and if small, placed upon a table; a little rock-work will hide the box and give it a more natural appearance. The tree may be illuminated or not. If illuminated small wax tapers should be used, and so placed as to show the presents to the best advantage. It is customary in some sections of the country, for Sunday-school teachers to reward their scholars with a party on Christmas eve; at which a large and brilliantly lighted Christmas tree holds an appropriate present for each scholar. After a *short* address by the superintendent, the presents—which should be properly marked—are taken off and distributed. If the distributor is fancifully dressed, it will add greatly to the amusement of the children.

1040. The Art of Dressing Well.—A lady's attire, from its very nature and fashion, favors elaboration and the exercise of the decorative art. Indeed, females are permitted, and even expected to bestow such an amount of care and attention upon attiring their persons as will tend to render them the charm of the household and the ornament of society. No female, therefore, need despise studying dress as *an art;* by which we mean that exercise of taste and judgment which teaches what style and color of dress is *most becoming to the figure, face, age, etc.*, and also what fashions and colors best blend and harmonize with each other. The following rules illustrating this subject may be confidently relied on and advantageously applied. *Short ladies* should not wear flounces to their dresses, because the undue breadth which it gives to the lower part of the person tends to diminish its height. For the same reason they should not wear large check patterns or stripes running round the dress.

Tall ladies, as a matter of course, may wear their dresses on principles diametrically opposite to this. *Stout ladies* should wear dark-colored dresses, and simple patterns, as they diminish the apparent size of the figure; the skirts also should have few or no flounces except where the figure is above the ordinary height. *Thin ladies* should wear light colored dresses, and patterns displaying breadth of design, such as large checks, broad stripes, etc.; flounces may also be freely adopted, as they serve to diminish the angles of the figure, and to impart a certain degree of rotundity. *Young ladies* have a wide latitude allowed them for dress; gayer colors and more fanciful styles may be indulged in, so long as they do not amount to over-dressing or unsuitableness. *Elderly ladies* should attire themselves in a neat quiet manner; the materials of their dress should be substantial, the colors dark, and the design small. Above all things they should avoid a juvenility of style, since, instead of making old people look younger, it has an immediately opposite effect, and only serves to bring out more prominently, and to contrast more painfully, *the youth of the dress with the age of the wearer*. The science of color, as it exerts so important an influence on personal attire, ought to be studied much more carefully than it is, for it is not uncommon to see ladies whose costumes create an unfavorable impression simply because the colors of the various articles of the dress have been selected without the slightest regard being paid to their harmony. *See* (1048) *Laws of Color*.

1041. The Style of Dress.—In regard to the suitability of dress generally, it may be safely laid down as a rule, that the style universally regarded as the most becoming, is that which is elegant without being gaudy or ostentatious, and simple without savoring of prudery or affectation. A pleasing combination of colors, and the proper *set* of each portion of the attire, give more style to dress, than does costliness of material. Extravagance or singularity of designs, large staring patterns and a profusion of gay colors, instead of being agreeable, are positively repulsive to the eye. Many females appear to labor under a delusion in this respect, and when dressed in this grotesque fashion imagine that because they are stared at, they are admired; whereas, if they could but hear the comments which these vagaries provoke, they would not be long in exchanging their style of costume for one of a totally different character.

1042. In purchasing Dress Goods, it is certainly wiser to select the better class of materials in preference to inferior fabrics, because the cost of making up, lining, trimming, etc., is as expensive in the one case as in the other; so that with the lower-priced dress this outlay is incurred twice or thrice as frequently as with the higher priced, thereby rendering the cost much greater and never appearing half so well. Plain dresses are more economical than fancy, and single colors than varied, because as fresh patterns and new combinations of colors are springing up every day, it is quite possible for the fashion to be obsolete before the material is half worn. And besides, in dresses of varied shades, the colors may not be equally fast; and if one of them fades, the whole dress loses its freshness and beauty. The most serviceable materials of all are French merino, black alpaca, and black silk.

1043. Care of Dresses.—Dresses are better preserved in presses or wardrobes, than in drawers; and when put away should be hung up, with the lining outwards, to preserve them from dust or discoloration. Where flounces are worn care should be taken when sitting down to remove those out of the way which are likely to come in contact with the seat, otherwise they become creased and tumbled, and spoil the whole appearance of the dress. When dresses are taken off they should be well shaken, to free them from the

dust contracted in the wearing. The dress that is worn out of doors should be exchanged for an older and easier garment to be worn indoors; a proceeding that will not only conduce to comfort, but tend to preserve the dress considerably longer than if worn indiscriminately.

1044. The Influence of Apparel upon Health.—An important consideration in connection with dress, is its influence upon bodily health and comfort. The natural heat of the body is ascertained to be 98 degrees, any degree of heat or cold above or below this is prejudicial to health if it continue for a length of time; the great aim with regard to clothing should be, therefore, so to regulate it according to climate and season, that it may have the power of retaining or passing off heat, as occasion may require. In our variable climate we ought never to discard our winter clothing too early, nor to wear our summer apparel too late; and the safest plan is to make the change gradually, so that the body may be accustomed and inured to it. *Apparel should always be easy and loose* fitting, so that every member of the body may be unimpeded in its action, and permitted to develop itself naturally. No stress or pressure should be allowed on any part of the body. Cravats, garters, buckles, and other ligatures fastened tightly tend to obstruct the natural flow of blood, and act injuriously upon the system generally. In cold weather an addition to the clothes usually worn in the house should be made upon venturing out, and upon returning into a warm room from the cold air the extra clothing should be gradually laid aside. *Persons of delicate constitutions* should pay the strictest attention to their apparel, and study health in preference to appearance. It is absolutely necessary that such persons should always be well protected next their skin, so as to be prepared for any atmospheric changes that may suddenly take place. Damp or wet clothing should be taken off as quickly as possible, the serious consequences of neglecting this precaution are too well known to be further dwelt on. *The clothing of infants* demands the greatest attention, for their organs and functions are so feeble, that any sudden or undue exposure of the body is liable to produce serious and even fatal consequences. *The clothing of the aged* should be made of warm materials, as a sensation of coldness is inseparable with the decline of life, and artificial means are therefore needed to supply the place of the natural warmth. In no case should this be disregarded.

1045. Personal Ornaments.—The wearing of ornaments requires to be guided by taste, and regulated by judgment. They should only be employed to a limited extent; no person having any claim to the rank of lady or gentleman wearing a profusion of them. Any offence against this rule is an evidence not only of the bad taste, but the mental inferiority of the wearer. One simple rule affords a safe standard of personal decoration: those who possess personal advantages need no adventitious display to enhance them, whilst those who are cast in an ordinary mould, render their personal appearance more ordinary still, by the very contrast between the ornaments and the wearer. Age has also something to do with the matter: it is sometimes excusable for the young to have recourse to ornamentation; but when persons of mature years decorate themselves to excess, it is a truly pitiable sight. Then, too, ornaments should be appropriate to the dress, and appear designed to answer some useful purpose; a chain, for instance, when worn round the neck should support a watch or locket; and a brooch or other ornament should be placed in that part of the dress where it fulfils its intended uses. No article should be worn in a manner that would make it appear simply as an *ornament*. The only exceptions to this rule are *rings* and *bracelets*.

1046. Jewelry.—In purchasing jewelry, always deal with first-rate establishments, and do not be led away by inferior articles which are advertised or marked at unusually low prices. There is scarcely anything more vexatious than to buy what is believed at the time to be genuine jewelry, and to discover afterwards that it is only a spurious imitation; whereas jewelry of real value always gives satisfaction as long as it is worn, and may be converted into cash at any moment, should the possessor be necessitated to part with it. When such articles are bought, the purchaser should by way of security, have a bill made out with each article duly specified, and a warranty attached by the person who sells them; so that if any subsequent question arise as to the genuineness of the articles, the purchaser may be enabled to call upon the vendor to make good the depreciation, if any such be proved. The effectiveness of jewelry greatly depends on the style and chasteness of the design, as in many cases articles of enormous cost will not appear so well to the eye as others of a tenth part of their intrinsic value; simply because there is a heaviness of style and poverty of design which tends, as it were, to dim its lustre and depreciate its value. Consequently, by exercising a due amount of taste, money can be laid out far more advantageously than when it is only sought to obtain massive and expensive articles.

1047. The Bonnet.—This article of female attire is one of the most important, for, according as it offends against or conforms with, certain principles of taste, so it is rendered what is called "becoming" or "unbecoming," and materially influences, not only the appearance of the face of the wearer, but the whole person. The following are the general principles which should guide females in their choice of bonnets:—When the face is round, it should come so far forward as to cover part of the cheeks; and should the lower part of the face be broad, this defect may be entirely concealed by bringing the corner of the bonnet in a sloping direction towards the point of the chin. When, on the contrary, the face is thin, the bonnet should be so worn as to display as much of the cheeks as possible. Generally speaking, the bonnet, in order to adapt itself to the contour of the face, should be worn slightly off the head, because, when the oval of the face and the oval of the bonnet occupy the same lines of sight, the result is an inartistic formality. But when the two ovals intersect each other, an harmonious combination of lines is produced. Tall females should be careful not to increase their height by the adoption of elevated trimmings; while ladies of low stature may, on the contrary, take advantage of such accessories. In regard to color, it may be stated that pink, yellow, or violet bonnets are unfavourable to fair complexions, because the shades they reflect are of a sickly and greenish east. On the other hand, blue and green are favorable to fair complexions, on account of the lively and roseate tinge they impart. Again, black bonnets are becoming to fair persons but not to dark, whereas white bonnets are more fitting for brunettes than for blondes.

A bonnet and its trimmings will last much longer if dusted immediately after a walk, and then placed in a bonnet-box. Straw bonnets may be greatly improved in appearance by washing them with soap and water, applied with a sponge or flannel; after washing, rinse them well in cold water, and dry them quickly in the air; when dry, beat the white of an egg well and wash the bonnet with it. The wire should be removed previous to the operation, and fastened on afterwards. Chip and straw bonnets may be dyed black by boiling them three or four hours in a strong decoction of logwood, adding a little green copperas; the bonnets may be allowed to remain in the dye all night, and dried the day

following in the open air. The inside and outside should afterwards be well rubbed with a sponge moistened with sweet oil; and, finally, the bonnet should be blocked to the shape required. The art of *making bonnets* may be achieved by any person possessing taste and intelligence after a few instructions, thereby effecting a great saving in expenditure. The materials may be easily procured, and the fashion decided on by the aid of the styles exhibited in the shops, and also by consulting the book of fashions.

1048. The Laws of Color.—The science of color is based upon certain laws of harmony, relation, and contrast; and should receive much more attention than is generally bestowed upon it. There are three *primary*, and four *secondary* colors. The first are *red*, *blue* and *yellow;* the second *orange*, *indigo*, *violet* and *green*. Each of the colors has some other color which is *complementary* to it; and these are said to *harmonize*. *Harmony of color* delights the eye, as harmony of sound, or music, does the ear. It is desirable, therefore, to know the colors and their complementary attendants, that we may exercise good taste in the selection of dress, in the decoration of rooms, in arranging flowers, etc.

Black	is the complementary	of		White.
Violet	"	"	"	Yellow.
Blue	"	"	"	Red.
White	"	"	"	Violet.
Yellow	"	"	"	Blue.
Red	"	"	"	Green.
Green	"	"	"	Purple.
Orange	"	"	"	Indigo.

And *vice versa*.

Black and *white* may be said to contrast, and yet they harmonize. Two rosettes, one of white, and the other of black ribbon, placed a slight distance from each other, would *contrast;* but let the ribbons of the two be intermixed in one rosette, and the white will look purer, and the black more intense, by their reciprocal action. They would thus produce an *harmonious contrast*. In selecting colors, it is necessary, in order to obtain the best possible effect, to take into consideration the *strength of tone*, or shade. For instance, a very *strong red* harmonizes but imperfectly with a very *pale* green.

The primitive colors assort with white favorably, in the order here given:

Light Blue,	and White.
Rose,	" White.
Deep Yellow,	" White.
Bright Green,	" White.
Violet	" White.
Orange	" White.

Thus an undesirable tinge in a white dress may be considerably lowered by wearing violet trimmings, or a scarf of that color. A yellow tint is removed by association with bright orange, whose complementary *blue* is added to the *white*.

1049. How to Choose Colors that will Harmonize.—To choose colors that will harmonize with each other, the following simple plan may be adopted. When making a dress or other article, cut a piece of it of the size and shape of a large wafer, and lay it on a black ground; look on this for a few seconds either by the light of the sun or candle, then suddenly turn the eye on to a sheet of white paper, and the tint which presents itself will indicate the color that will harmonize best with the article being made.

1050. Hints to Gentlemen on Dress.—In buying clothes, cheapness should not so much be regarded as quality. As a general rule, it is more satisfactory to order clothes from a respectable tailor, or to purchase the material and have them made according to direction. In the *make* of clothes comfort should not be wholly sacrificed to fashion, nor, on the other hand, should fashion be totally disregarded; in most cases a compromise may be made between the two without overstepping the boundaries of either. Apparel should possess a certain *suitability*, that is to say, that every person should appear in such clothes as are

adapted to his pursuits, and comformable to his station in life. A man who occupies a humble position is not expected to dress extravagantly. Neither is he who possesses the means justified in ignoring conventionalities by wearing apparel absurdly mean and ill-fashioned. The *harmony* of apparel should always be considered, both as it affects the wearer as a whole, and also in the contrast and combination of the different garments. The first rule in the harmony of dress is a quiet and subdued tone of coloring. The leading characteristics of dress are, elegance, neatness, and simplicity. It has been truly said that a gentleman to be *properly dressed* should not be able to leave behind him the remembrance of any one particular garment he has on, but only the conviction of a *gentlemanly style* not easily defined.

The manner in which *clothes are worn* materially affects their appearance: if they be ever so well made in the first instance, and are carelessly put on and negligently adjusted, they will always have a clumsy and awkward look. When putting on a coat it should be pulled down at the waist, and fitted to the figure by two or three gentle movements of the arms. A new coat should always be buttoned at the waist, until it has taken the proper *set*. Pants, when new, should be well drawn up, and afterwards let down a little. They should always be put on *after* the boots.

1051. Care of Clothes.—The length of time that clothes will last, depends greatly upon the care that is bestowed upon them. Under favorable circumstances they will last twice as long as when they are neglected. It is better to brush them with a wisk, than with a hard brush, as the nap is soon worn off by the frequent application of the latter. When clothes are taken off, they should be hung up in a wardrobe. A lounging dress should always be adopted for the house, which by being substituted in the evening for the costume that has been worn during the day will add both to comfort and economy. But when it is not practicable to change the whole attire the coat at least should be substituted; this not only applies to home wear of an evening, but should also be adopted during an employment that is likely to be prejudicial.

1052. The Hat.—A hat should be chosen possessing a short, smooth, fine nap, of a good black color, and sufficiently elastic to resist ordinary wear and tear, without breaking or giving way. The shape of the hat should correspond with the contour of the face. Although much greater latitude is now allowed in the fashion of hats than formerly, still all eccentricity should be avoided, and a person should not be hasty in adopting a new style, without first ascertaining whether that style is suitable for him. During the summer months, white hats will be found more pleasant to wear than black ones. A shabby hat should never be worn, as it is the most conspicuous part of the attire, and not only looks bad in itself, but imparts a mean appearance to the whole person. The care and preservation of a hat will be found to depend in a great measure upon the following precautions:—If your hat be wet, shake it out as much as possible, then brush with a soft brush quite smooth, or with a linen cloth or handkerchief; wipe it very carefully, keep the surface flat and smooth in its ordinary direction, and hang the hat up to dry in a cool place. When it is dry, place it on a table, and brush it round several times with a soft brush in the proper direction. If the gloss be somewhat dulled, pass a flat iron moderately heated over it two or three times, and brush it afterwards. Hats should be brushed daily with a soft brush, and when not in use should be put by in a box. In putting your hat down, always place it on the brim, and be sûre that the spot is free from grease, or anything that would soil it.

1053. The Coat.—As this article of male attire covers the most im

portant organs of the body, it should be as easy when buttoned as when unbuttoned, so that without any unpleasant pressure upon the chest it can be closely buttoned up to the chin. The power of doing this, is a convenient provision against the sudden alternations from heat to cold; for this simple protection will prevent delicate persons from receiving many of those mischiefs which our climate occasions. The make of a coat, independently of the comfort or discomfort it imparts to the wearer, has greatly to do with the length of time that it will last, for if each section of the garment is made so as to adapt itself to that particular part of the body, every portion of it will wear uniformly; but if the coat is awkwardly cut and inartistically put together, there will be a greater stress upon one part than upon another, and the continual dragging thus kept up, will cause one-half of the garment to give way before the other is scarcely worn. Coats are liable to become soiled at the collar, this may be remedied by applying a little benzine with a piece of sponge or rag. Another defect in a coat that has been worn for some time is an awkward projecting at the elbows; to rectify this, the part should be pressed with a hot iron, and then hung up with a weight suspended from the wrist. When coats are not in use, they should be hung up in a closet or wardrobe. The *etiquette* in connection with the wearing of coats is extremely stringent; certain occasions and ceremonies requiring a dress coat to be worn, and others a frock coat, and a disregard of this custom in either case, would be considered as a solecism in good breeding. *Dress coats* are worn at dinners, balls, theatres, operas, and all visits of ceremony; and in the evening generally. *Frock coats* are worn at weddings, breakfasts, morning-concerts, pic-nics, when walking or riding, and in the morning generally.

1054. Boots.—In choosing these articles of attire, care should be taken that they are strongly made, and of good material. Low-priced boots are invariably the dearest, as they are constantly needing repair, and wear out in an incredibly short space of time, beyond all mending. Boots should neither be too loose nor too tight; in the one case, they chafe the skin, and produce blisters, and in the other, they cause corns, bunions, and other painful disorders of the feet. The soles of boots should not be too thick, because they interfere with the natural bend of the foot. Neither should the soles be so thin as to expose the feet to the influence of cold and damp; a medium thickness of sole is the best, and will be found the most comfortable wear, even in summer. The heels of boots should not be of an inordinate height, as by that means the foot is unnaturally forced into the fore part of the boot; so that it is impossible to walk any distance without experiencing pain. The toes of boots should not be too narrow, as the toes of the feet are driven one upon another; and in addition to corns and bunions being induced, that part of the foot becomes permanently deformed, and partially disabled.

1055. Care of Boots.—In the first place they should not be worn immediately after they are made, but should be put away for some time to season. A person should be provided with two pairs, putting those by to-day that were worn yesterday, thus relieving them of the constant strain that would otherwise be upon them. When boots are damp they should be taken off as soon as possible, put into shape, and slowly dried. When they are tight they may be made to go on easier by warming them; and when too large, felt, cork, or leather in-soles may be used.

1056. Black Reviver.—Take bruised galls, one pound; logwood, two pounds; green vitriol, half a pound; water, five quarts; boil for two hours and strain. This is used to restore the color of *black cloth*. It should be applied lightly and evenly over the surface with a piece of sponge, and the

clothes should then be hung out in the air to dry. The following is an excellent *black silk* reviver. Boil logwood in water for half an hour, then simmer the silk in it for half an hour, take it out and put into the dye a little blue vitriol or green copperas; cool it, and simmer the silk for half an hour. Or, boil a handful of fig-leaves in two quarts of water until it be reduced to one pint; squeeze the leaves, and bottle the liquor for use. In cases where the silk has not faded to any considerable extent, cold tea will answer every purpose.

1057. To Choose Cloth.—Particular attention must be paid to the firmness of the fabric and the closeness of the texture. If, on passing the hand lightly in a direction contrary to the nap, there be a general silkiness of feel, uninterrupted by roughness, it is certain that the cloth is made of fine wool. The texture should not only be composed of fine threads, but it should have an even consistency, produced by the operation of felting, by which the fibres of the wool are so perfectly incorporated that they connect the tissue of the threads, and give the entire web the character of felt. The quality of cloth may also be tested as follows:—Take up a portion of the cloth loosely with both hands, press a fold of it between the thumb and fore-finger of one hand, and give a sudden pull with the other; and according to the peculiar sharpness and clearness of the sound produced by the slipping of the fold, the goodness of the cloth is to be judged. The gloss on cloth should not be too satiny, as this causes it to spot with the rain.

1058. Scouring Cloth.—If black, blue, or brown, dry two ounces of fuller's earth, pour on it sufficient boiling water to dissolve it, and plaster the spots of grease with it; mix a pennyworth of bullock's gall with half a pint of chamber-lye and a little boiling water. Brush the spotted places with a hard brush dipped in this liquor, then immerse the article in a bucket of cold spring water. When nearly dry, lay the nap in its right position, and pass a drop of oil of olives over the brush to finish it. If gray, drab, or fawn, cut yellow soap into thin slices and pour water upon it, to moisten it. Rub the greasy and dirty spots. Let the article dry a little and then brush it with warm water, repeating, if necessary, as at first, and using the water a little hotter; rinse several times in warm water, and finish as before.

1059. Choosing a House.—In making choice of a house there are several points upon which it is desirable to obtain information. First, take care that it is not damp. Dampness may arise from a variety of causes, but imperfect drainage, and a too close contact of the floors with the ground are the principal. When a house is damp in any part, no matter from what cause, it is advisable by all means to avoid it, for it may produce the most pernicious effects upon the health of your family. Second, see that the house has a free open exposure for fresh air, and is situated so as to catch the sun's rays. Third, ascertain if there be a plentiful supply of pure water. Fourth, learn whether the chimneys are in good order and do not smoke. There are other inquiries to be made, which, though not applying to the structure and convenience of the house, intimately concern the dwellers within it. Thus, convenience to the place of business of the master of the house, and the nearness of shops where articles necessary for the household may be purchased, are essential considerations; many persons have been tempted to take a house, in an evil hour, merely because it struck the eye as being pretty and pleasant, and it has afterwards been discovered that these charms have gradually worn off, as the inconveniences connected with it increased. The respectability of the neighborhood is another important point, and this is especially so, when the house you propose taking is at-

tached or semi-detached; in the latter case, nothing can well be more vexatious and annoying, than being linked to a neighbor in whose house there is considerable quarrelling, noise, and other disturbances. Be careful to calculate that the rent is not too high in proportion to your means. Carefully note the state of repair in which the house is, and if anything strikes you as requiring to be done, insist upon its being done before you enter the house. Never content yourself with the promises of a landlord on this score, for when once he has secured you as a tenant, the chances are that the promised repairs will be attended to at his convenience, not yours. Hesitate to sign an agreement for a lengthened term, until you have well considered whether such a contract is in accordance with your pursuits, and agreeable to your family. And be particularly cautious never to sign an agreement without perfectly understanding what you are signing. In important cases it is better to leave this matter in the hands of a respectable solicitor; it being much wiser economy to incur a trifling outlay at the outset, than to incur expense and litigation hereafter. When buying a house, the foregoing hints apply with all the greater force.

1060. Arrangement and Decoration of Apartments.—The arrangement and decoration of the different apartments of a house agreeably to their *suitability and uses* is an art by no means to be despised, since it is not only capable of gratifying others, but also of administering to that comfort and happiness which is always associated with *home*. The following hints, therefore, in connection with this subject, may not be unacceptable: The colors employed in the interior of an apartment should be so distributed as to *contrast with each other*. Thus, the colors of the carpet should neither be so brilliant as to destroy the effect of those of the paper, nor the contrary; and with regard to the curtains, they should all be of a color so as to blend and harmonize with both. For instance, a very brilliant colored carpet, say crimson, may have a drab or other quiet color, both in the curtains and the paper; but by way of relief, the bordering of these should introduce a little of the same brilliant color. So a room with a bright blue or crimson carpet may have white, yellow, or drab curtains and paper; but blue or crimson ornaments or bordering should be introduced to preserve harmony of effect. A green carpet may have black, white, or red curtains, with green borders or ornaments. A yellow carpet may have black curtains and a dark grey paper, with yellow borders and ornaments.

The designs or patterns of both carpet and paper should be in keeping with the apartment; that is to say, *large patterns* are most suitable for *large rooms*, and *small patterns* for *small rooms*. It should also be observed that for *low-pitched* rooms striped paper is preferable, because it gives an effect of height; whilst on the other hand patterns with lines across, or borders, should be avoided as detracting from the height. The designs of curtains and other hangings should always be what is termed "up and down," as more in keeping with their character than any other.

The arrangement of apartments should be such as to combine comfort with effect, neither being unnecessarily sacrificed to the other; in this particular the judgment and the eye are the best monitors, as they seldom fail to dictate that which is most proper and artistic. The following suggestions apply to the suitability of decoration and arrangement of individual apartments.

1061. Drawing-rooms should be characterized by light and cheerful coloring; and this is produced by the introduction of the light tints of brilliant colors, with a considerable degree of contrast and gilding. The furniture should be light in make and tasty in design. There should also be intro-

duced sculpture, paintings and a few illustrated books, all selected with the greatest taste. And it should be remarked here that a drawing-room should not be *crowded with ornaments*, especially those of a trivial character, as it not only betrays a vulgarity of taste, but also renders every step and movement of a visitor hazardous.

1062. DINING-ROOMS.—The characteristic colors should be warm, rich, and substantial; and when contrasts are introduced they should not be vivid; the furniture should be massive, and principally made from walnut or other dark wood, and the whole of the apartment should be so furnished and ordered, as to convey the greatest possible amount of *ease and comfort*. This room should be so situated in the house as to be at a convenient distance from the kitchen, without being subject to the odors arising from the culinary operations.

1063. PARLORS, which are intended, on an exigency, to supply the place of either drawing-room, or dining-room, should be furnished in a medium style between those apartments.

1064. LIBRARIES AND STUDIES should have a grave and quiet tone pervading them, without being too dull or monotonous. The furniture and appliances of these apartments of course mainly depend upon the taste and pursuits of the occupant.

1065. BED-ROOMS should have a light, cleanly, cheerful style of coloring; a greater degree of contrast may be admitted here than in any other apartment. The carpets may even be brilliant and gay, and the paper of a light and airy pattern, such as designs of sprigs, flowers, etc. The curtains should not be of thick material, nor gathered up in elaborate festoons and folds, but should rather be thin, and loosely hung.

1066. STAIRCASES, LOBBIES, AND VESTIBULES should all be of a cool tone, and simple in their style of coloring, which will greatly enhance the effect of apartments, entering therefrom. The effect to be produced here is architectural grandeur, yet there ought not to be an entire absence of color, as the "communications" of a mansion, should form a link between exterior simplicity and interior richness.

1067. DECORATION.—The decoration of the interior of a house adds materially to its pleasantness, and if carried out with taste, cannot fail to possess a charm even to the most indifferent. This does not depend upon the abundance or costliness of the ornaments chosen, so much as their suitability or arrangement. In fact, an apartment crowded with ornaments without any use or meaning, savors of vulgarity, and may be interpreted as a wish to astound the beholder instead of pleasing or interesting him. Therefore, the tables, mantelpiece, etc., instead of being overloaded with a confused crowd of shells, statuettes, wax flowers, artificial fruit, porcelain jars, and glass lustres, should be sparingly decorated with a selection of the above-named objects, gracefully grouped. Prints, paintings, and drawings are subject to the same rule, namely, excellence rather than profusion. With regard to ornamentation generally, it is best regulated by its obvious purpose, which is to relieve the eye, not offend it.

In addition to the foregoing, we subjoin the following hints appertaining to the subject of decoration generally.

Bright red or crimson colors assort *ill* with walnut furniture—green colors assort *well*.

Violet or blue stuffs combine *well* with light woods, such as satin-wood, maple, etc.

Dark red stuffs are *more durable* than any other color.

With old paintings, gilt frames harmonize *well*; black or bronze *badly*.

With engravings light gilt frames or maple harmonize *well*; black or dark colored woods *badly*.

Hangings of a light green color are the *most favorable*; those of an orange color the most unfavorable.

Small patterned paper-hangings are generally *preferable to large ones.*

Light colored carpets are *more serviceable* than dark colored.

Bright colored carpets are best for *large apartments.*

The brightest colors of a carpet should be *in the centre.*

The frames of paintings and engravings occupying the same room should be similar both in their *fashion and color.*

The valance for hangings in low-pitched rooms should be fixed as *near to the ceiling* as possible.

In furniture *no one new article* should be intruded amongst that which has been long in use.

1068. Window Curtains.—Window curtains add considerably to the comfort and elegance of apartments, and a certain amount of taste and judgment is required to select the most agreeable forms and to adapt them to the several places for which they are destined.

1069. MATERIALS FOR CURTAINS.—In order to secure graceful folds, pliability of material is essential, and for this purpose silk and fine cloth are the best substances. The drawing rooms have, of course, the richest materials assigned them. For other apartments in common use, a material of more substance is required, and for these moreen is generally used. *Muslin curtains* have a very pleasing effect, and may be used not only in summer, but at other seasons, in addition to the usual thick curtains. Curtains made of open netting are also very durable. The simplest kind of window curtain for *bedrooms*, consists of two pieces of dimity, printed calico, muslin or other material, of the proper length and width, nailed to the top of a piece of wood fastened up on purpose, and kept back in the day by being looped up on each side by a cord fixed on the sides of the windows. This curtain may be quite plain, or have some kind of border or fringe at the top.

1070. HOW TO HANG CURTAINS.—The general mode of hanging curtains in *sitting rooms, drawing rooms*, etc., is by having rings at the top of the curtains, passing over a rod or pole stretched across, by which each half of the curtain is drawn to either side of the window. The rod or pole on which the curtain slides, is generally connected by a portion of the curtain called a valance; this gives richness and finish to the window; but when the rooms are low, they should not be deep, as they then hide much of the light. Valances are constructed to hang in a variety of modes; sometimes they are made to form festoons, and are constructed with fringes, tassels, and cords, in various ways.

1071. CARE OF CURTAINS.—When curtains are taken down, they must be well shaken and then carefully dusted; if they are washing curtains they must be put into cold water to soak for a day or two, rinsing them and changing the water occasionally. They must then be washed out and rough-dried, and be put away for re-washing in the spring. If the curtains should be of chintz or printed calico, brush them with a clothes brush, particularly between the folds; then wipe the curtains with clean flannels, and rub them well along the plaits and folds with dry silver sand and dry flannel, or with dry bran, particularly at the top parts of the furniture, which are generally more soiled than the other parts; then well shake them and wipe them again with a clean piece of flannel. If the curtains should be of moreen, then, they must be rubbed on a large table, with dry silver sand and a piece of dry clean flannel or a coarse cloth, scrubbing them thoroughly all over, particularly those parts where the dust has settled, or where they are soiled or stained. Then shake and brush them with a clothes brush, and again rub them with a clean towel, so as to remove every particle of sand; then

fold them carefully up in linen wrappers. Damask, silk, and satin curtains may be cleaned by rubbing the stale crumb of bread over them For these latter long curtain bags are frequently made to enclose them, when the apartment is not in use.

1072. Household Cleanliness.—There cannot be a doubt but that the comfort, health, and happiness of a home depend in a great measure on the exercise of cleanly and orderly habits. The best way to keep a house thoroughly and regularly clean is to apportion the process of cleaning the several parts of the house to certain days and hours. For instance, the apartments in use every day require daily cleaning, and this should be commenced and finished at an invariable hour. Other apartments that are less occupied will require seldomer attending to, but whether it be once, twice, or thrice a week, the days of cleaning should be perfectly understood and rigidly adhered to. Uncleanly and disorderly households are often the result of one unfortunate relaxation of the usual regulation. A wife, for instance, starts in life with a determination to fulfil her domestic duties systematically and regularly. By-and-by a day arrives for cleaning a particular apartment, when on some frivolous pretext the process is postponed to another day; when that day arrives, instead of being devoted to the duties assigned it, it is interfered with by the back work, and matters become still more disarranged, until at length one day driven on to another, and one process confounded with others that precede or follow it, all arrangement and order are at an end, and everything is done how and when it can be. In addition to the moral and physical advantages of a cleanly dwelling, it also confers a species of rank on the promoters, to whatever class in the scale of society they may belong. A dirty-looking house is naturally associated with careless and improvident inmates, whose lives are misspent in the indulgence of irregular habits, and vicious idleness. But a cleanly house, on the contrary, impresses the most superficial observer with feelings of respect for the occupants, and a conviction that their course of life is guided by proper principles.

1073. Sweeping.—It will not be necessary to sweep the carpet all over, more then once a week, on the other six days, only those parts of the room chiefly used will require sweeping, and this may be done with a dust-pan and hand brush. On cleaning-day, the windows are to be opened in the first instance, the curtains are then to be shaken, and hung up high enough above the carpet to remove them from the dust. The sofas, beds, and choice furniture must be covered with loose sheets of coarse calico or brown holland, and the rest of the room is to be prepared for the sweeping of the carpet by the removal of chairs, tables, etc., away from the sides and towards the centre of the room. The sweeping then should be begun from the upper end of the room, and proceeded with towards the fire-place, or lower end of the room, according as the pile of the carpet appears to be; for the sweeping must not go against, but with the pile. Stair-carpet should never be swept down with a long broom, but always with a hand-brush; a dust-pan being held closely under each step.

1074. Dusting.—This operation should follow sweeping, after an interval sufficiently long has elapsed to allow the dust to settle. The window curtains, which have been lifted up from the floor when the room was being swept, should now be released, opened, shaken, brushed with the proper brush, and neatly arranged over the hook or bands for the day. Tables, sofas, chairs, etc., are then to be carefully dusted and arranged. Ledges of wainscots, panels of doors, and window-panes must be swept with a small brush. Specimens and pictures with gilded frames, must be brushed with feathers or silk dusters. Chimneypiece

ornaments must be carefully removed, and the chimneypiece either wiped free from dust, or washed with cold soap and water; the ornaments before being replaced must be carefully wiped with a fine linen duster. Bedrooms require a thorough dusting every day.

1075. Scrubbing.—After the white-washing, paint-cleaning, and window washing of each room has been completed, let the floor be scrubbed; first seeing that it has been well swept. For this purpose have a small tub or bucket of warm water; an old saucer to hold a piece of brown soap; a large floor-cloth, and a long-handled scrubbing-brush. Dip the whole of the floor-cloth into the water, and with it wet a portion of the floor. Next, rub some soap on the bristles of the brush, and scrub hard all over the wet place. Then dip your cloth into the water, and with it wash the suds off the floor. Wring the cloth, wet it again, and wipe the floor with it a second time. Lastly, wash the cloth about in the water, wring it as dry as possible, and give the floor a final and hard wiping with it. Afterwards go on the next part of the floor, and proceed in the same manner, a piece at a time, till you have gone over the whole; changing the dirty water for clean, whenever you find it necessary. For a large room, fresh warm water will be required four or five times in the course of the scrubbing. When the floor has been scrubbed, leave the sashes raised while it is drying.

1076. For Scouring Floors that are very dirty. Mix lime, one part; sand, three parts; soft soap, two parts. Lay a little on the boards with a scrubbing brush, and rub thoroughly. Be careful to clean straight up and down—not crossing from board to board; then dry with clean cloths, rubbing hard up and down the same way. Floors should not often be wetted, but very thoroughly when done; and once a week they may be dry-rubbed with hot sand and a heavy brush—the right way of the boards.

1077. To Remove Stains from Floors.—To take out *grease spots*: dissolve some fuller's earth in a little hot water, to the consistency of thick paste, and let it get quite cold. Cover the grease spots with it thickly; and after it has remained all night, or for several hours, until thoroughly dry, scour it off with cold water. Should the grease not disappear with the first application, the operation must be repeated two or three times, or as often as may be necessary for its removal. *To take ink out*: apply strong muriatic acid, or spirits of salts, to the stains with a piece of cloth; afterwards, well wash the parts with water.

1078. Stone or Marble Steps and Mountings should be occasionally dry rubbed; the former with a blue or gray sandstone; the latter with a fine-grained stone and some marble dust.

1079. The use of Borax for Various Household Purposes.—It may not be generally known how very valuable borax is for various purposes of household use. We find it the very best cockroach exterminator yet discovered. One half pound, costing but fifty cents, has completely cleared a large house, formerly swarming with them, so that the appearance of one in a month is quite a novelty. The various exterminating powders puffed and advertised have not been found fully effective, tending rather to make the roaches crazy than to kill them. There is something peculiar, either in the smell or touch of borax, which is certain death to them. They will flee in terror from it, and never appear again where it has once been placed. It is also a great advantage that borax is perfectly harmless to human beings; hence no danger from poisoning. It is also valuable for laundry purposes. The washerwomen of Holland and Belgium, so proverbially clean, and who get their linen so beautifully white, use refined borax as washing powder instead of soda, in the proportion of a large handful of

borax powder to ten gallons of water. They save soap nearly one-half. All the large washing establishments adopt the same mode. For laces, cambrics, etc., an extra quantity of the powder is used; and for crinolines (requiring to be made stiff) a stronger solution is necessary. Borax dissolved in water, makes one of the best hair washes known. It is also extensively used to improve the complexion. For this purpose a bottle of the solution should be kept on the toilet table, and a little of it be added to the water when washing. Persons who are compelled to use hard water for washing the person, should never be without it.

1080. To Remove Stains from Marble.—Take two parts of common soda, one part of powdered pumice-stone, and one of finely powdered chalk; sift through a fine sieve, and mix it with water; then rub it well over the marble, and the stains will be removed. Wash the marble afterwards with soap and water.

1081. To Remove Grease Spots from Marble.—Make a paste with fuller's earth and hot water; cover the spots with it, and let it dry; the next day scour it off with soap and water.

1082. To Polish Marble, etc.—Marble of any kind, alabaster, any hard stone, or glass, may be repolished by rubbing it with a linen cloth dressed with oxide of tin (sold under the name of putty powder). For this purpose a couple or more folds of linen should be fastened tight over a piece of wood, flat or otherwise according to the form of the stone. To repolish a mantelpiece, it should be first perfectly cleaned. This is best done by making a paste of lime, soda, and water, well wetting the marble, and applying the paste; let it remain for a day or so, keeping it moist during the interval. When this paste has been removed the polishing may begin. Chips in the marble should be rubbed out first with emery and water. At every stage of polishing the linen and putty powder must be kept constantly wet. Glass, such as jeweler's show counter cases, which become scratched, may be polished in the same way.

1083. Alabaster.—A species of soft marble used for ornamental purposes, which derives its name from Alabastron, a town of Egypt, where a manufactory formerly existed of works of art in domestic vessels, executed from the stone found in the neighboring mountains. As this composition is of a delicate nature, easily scratched, and soon stained by the smoke or atmosphere, all alabaster ornaments should be preserved from these external influences by being kept under glass shades.

1084. To Imitate Alabaster.—Alabaster ornaments may be imitated by brushing over plaster of Paris models with spermaceti, white wax, or a mixture of the two, or by steeping the models in the warm mixture. Or, instead of this process, they may be brushed over several times with white of egg, allowing each coating sufficient time to dry. Only models made of the finest plaster are suited for these processes.

1085. The Thermometer.—(*Ther-mom′e-ter.*) An instrument for measuring variations of temperatures. As the thermometer is often referred to in these pages, and, as its value in the household is not fully appreciated, we will describe its construction, in the hope that this wonderful and useful little instrument may be more frequently consulted. The expansion of bodies by heat furnishes the principle upon which thermometers are constructed; and as mercury boils at a high, and freezes at a low temperature, it is usually employed for this purpose. A glass tube with a bulb at one end, is partially filled with mercury, and then boiled, so as to expel all air and moisture, which are driven out by the mercurial fumes which now fill the tube. The open end is then closed by fusing the glass, and as the mercury cools it contracts

and settles in the bulb to the lower part of the tube; leaving a vacuum above, through which it will rise when again expanded by heat.

1086. The Graduation of Thermometers is accomplished by placing the tube in contact with melting snow and ice, and the level at which the mercury stands will be the *freezing point;* it is next plunged into boiling water, when the mercury will rise and indicate the *boiling point;* the interval between these points is then divided into a number of equal spaces, called *degrees.* In determining these points, the same process is adopted for all mercurial thermometers; but the interval between them is differently divided in different instruments.

1087. Fahrenheit's Thermometer (*Far'-en-hites*: *sound the a as in fat*). This thermometer bears the name of its inventor, and is used in the United States and Great Britain. In Fahrenheit's scale the interval between the freezing and boiling points is divided into 180 degrees, and this division is continued below the freezing point to the place 0, or zero. The freezing point is 32, the boiling point 212; when, therefore, the mercury stands at 0, it is 32 degrees below the freezing point.

Other Thermometers used. In addition to Fahrenheit's thermometer, two others are extensively used: Reaumur's (*Ro'-murz*) in Spain and Germany; and the Centigrade in France. The only difference between these thermometers is in the method of graduating the interval between the freezing and boiling points of water. In Reaumur's scale the freezing point is 0, the boiling point 80. In the Centigrade the freezing point is 0, and the boiling point 100. The temperatures expressed by Reaumur's and the Centigrade scale, may be changed to that of Fahrenheit's, as follows:

To change from Centigrade to Fahrenheit's, multiply by 9, divide by 5, and add 32.

To change from Reaumur's to Fahrenheit's, multiply by 9, divide by 4, and add 32.

1088. To Destroy Bugs.—Take four ounces of spirits of wine, two drachms of corrosive sublimate, one ounce of muriate of ammonia, one ounce of spirits of camphor. This mixture should be applied to the joints of the bedstead with a feather, and the surface washed with a sponge fastened to a stick. Care should be taken that this mixture is not *applied by candlelight*, as the flame might cause the spirits of wine to ignite and the most serious consequences to ensue. It should be labelled "Poison."

1089. To Frighten Bugs.—When persons are travelling, and put into beds infested with bugs, a simple and efficacious plan is, to put a small piece of camphor in the bed. The sprinkling of any strong perfume between the sheets and on the pillow will also answer the desired end. In both of these cases the odor is more than the insects can endure, so they are compelled to keep within their haunts.

1090. To Copy Letters.—Dissolve lump sugar in the ink ordinarily used, in the proportion of one drachm to one ounce of ink. Moisten a piece of unsized paper lightly with a wet sponge, and then lay it in soft paper to absorb the superfluous moisture. Put the moistened paper on the writing, place both between some soft paper, and pass an iron or other weight over it three or four times, when the copy will be immediately produced.

1091. Care of Gilded Articles.—Never touch gilding with water, but when about to clean it, blow off the light dust, and then pass a feather or light brush over it. If you wish to protect gilding from the flies during the summer season, pin tarlatan over it.

1092. To Clean Plate.—Articles of plate should be washed after using, with a sponge and warm soapsuds. They should then be wiped dry with a clean soft towel. The best plate-powder consists of dried and

finely sifted whiting or chalk. The greater part of the white sold in the shops is too coarse for the purpose; only the finest, therefore, should be employed. Brushes, hard and soft, sponge, and wash leather, are requisite for cleaning plate; if the powder be mixed with spirits of wine laid on with a sponge, and rubbed off with wash-leather, all tarnish will be removed. Salt stains and marks from eggs are more difficult to remove. It is a good plan to boil a fine soft old cloth in water with some prepared chalk dissolved in it, and to dry the cloth and use it for polishing. The soft brush is for the same purpose, the hard brush being for chased work, edges, crests, etc., so that not a portion of dry powder may remain in them. Plate should in all cases be finished with a fine dry wash-leather. Plated articles should be carefully wiped dry after washing them, otherwise they will rust or canker at the edges, where the silver first wears off, and on this account also, they should be cleaned as seldom as possible.

1093. To Remove the Coating from the Inside of Kettles.—Fill it with water, and add to it a drachm of sal-ammoniac; let it boil for an hour, when the fur, or petrified substance formed on the metal will be dissolved, and can be easily removed.

1094. To Prevent the Coating in Kettles.—Place in the kettle a clean oyster-shell, which, by attacking the particles of stone or lime deposited by the water, will have the effect of keeping both the kettle clean and the water pure.

1095. Sanitary Properties of Flannel.—As an article of clothing, flannel is superior to any other, both for personal comfort and the preservation of health. When worn as underclothing its advantages are numerous and important. It acts on the surface of the skin, and exercises the most beneficial action, by keeping the pores clean and in a state most favorable to perspiration. It has also the advantage of absorbing the perspiration as soon as emitted, and allowing its watery portion to pass off into the atmosphere almost as soon as formed. Thus, persons who wear flannel next their skin, seldom catch cold from changes of temperature, even though perspiring profusely. In a variable climate like that of ours, every person should wear flannel, not only in the colder season, but throughout the year; the substance of the material being regulated according to the coldness or mildness of the season. In fact, flannel is required even more in summer than in winter, because persons perspire more freely in warm than in cold weather, and are consequently more susceptible of cold; while at that period of the year their clothing is less capable of protecting them from the effects of sudden changes of temperature. Flannel clothing should be removed at night upon going to bed, otherwise the body does not receive the due amount of warmth and comfort from it during the day. Some persons imagine that flannel may be worn with impunity for an extraordinary length of time without changing; but this is an error, as flannel in time, from the repeated absorptions of perspiration which it undergoes, has a species of incrustation formed on its surface, which impedes rather than assists the operation of the pores, and creates considerable irritation of the skin. Flannels, therefore, for the purposes of health and cleanliness, should be changed once a week. Flannel is sometimes objected to from the irritation it causes when first worn, and for this trifling inconvenience is often discarded after a few hours' trial. This may in part be obviated by turning the flannel, and wearing the smooth and outer surface next the skin.

1096. To Wash Flannels.—Make a lather with soap, and warm, but not boiling water; wash the flannels in this as quickly as possible; rinse them in lukewarm water; press out

the water and immediately hang them in the shade to dry.

1097. To Shrink Flannel.—New flannel should always be shrunk before it is made up. To accomplish this put it into boiling water, and let it remain until the water is cold. In hanging it out to dry, do not suspend it in festoons, but spread it along the line straight and lengthways.

1098. To Reproduce a beautiful White on Flannel goods turned Yellow by Age.—Dissolve two pounds and a quarter of white soap, in ten gallons of soft water, and to this add, under constant stirring, one ounce of liquor of ammonia. The goods are soaked in the fluid and afterwards well washed with plain water.

1099. To Clean Merino.—Grate two or three large potatoes; add to them a pint of cold water; let them stand for a short time, and pour off the liquid clear, when it will be fit for use. Lay the merino on a flat surface, and apply the liquid with a clean sponge, till the dirt is completely extracted; dip each piece in a pailful of clean water, and hang it up to dry without wringing. Iron, whilst damp, on the wrong side. It will then appear almost equal to new. Silks of one color may also be cleaned in this way.

1100. Copper Cooking Utensils.—Many serious accidents have occured through the injudicious use of copper cooking utensils. Fruit prepared in copper stewpans, coffee-grounds left in a copper coffee-pot and afterwards mixed with fresh coffee, and other similar processes, are highly injurious. It should be known that fat and oily substances, and vegetable acids, do not attack copper while hot, and, consequently, if no liquor were suffered to remain and grow cold in copper vessels, they might be used with safety. It is important, therefore, to clean and dry copper vessels before they become cold.

1101. To Wash a White Lace Veil.—Put it into a strong lather of white soap and very clear water, and let it simmer slowly for a quarter of an hour. Take it out and squeeze it well, but be sure not to rub it. Rinse it in two cold waters, with a drop or two of liquid blue in the last. Have ready some very clear and weak gum arabic water, or some thin starch, or rice-water. Pass the veil through it, and clear it by clapping. Then stretch it out even, and put it to dry on a linen cloth, making the edge as straight as possible, opening out all the scallops, and fastening each with pins. When dry, lay a piece of thin muslin smoothly over it, and iron it on the wrong side.

1102. Ironing.—Previous to ironing, all linen and other articles, after being washed and well dried, must be properly folded and slightly damped by sprinkling water upon them just before the application of the hot iron. The proper degree of dampness is a nicety learned only by practice, but it is essential to the success of a good ironing. Ironing is a very important part of what is termed the getting up of linen; bad ironing is known by the creases left, and inaccurate folding, and sometimes the marks left by ill-cleaned irons, or even iron-moulds. A clean and expeditious way of heating smoothing irons is very essential as they are apt to be soiled by the ashes and coals, and require careful wiping to prevent staining the linen. To obviate this inconvenience, ironing stoves are constructed, by which the irons are heated without any possibility of their contracting dirt. The proper degree of heat in the smoothing iron is very necessary to attend to, and can only be learned by practice. Before using it, it is proper to try its effect upon a piece of blanket kept on the table for that purpose. The larger the irons, the longer they retain the heat, and the greater the pressure they are capable of giving. Small irons are employed for more delicate articles. The ironing-board or table should be very strong and steady; and for this pur-

pose one end or side of it is generally placed against a wall. It should likewise be placed on the window side, to have the benefit of a good light. The ironing cloth or blanket should be doubled, and pinned down round the table to prevent its moving. Bosom and skirt boards should always be used.

1103. Removing Household Furniture.—This is an undertaking of some importance, and requires to be conducted with great care and circumspection. For several days previous to removal, various articles in different parts of the household should be consigned to their respective packages; then the crockery and glass should be carefully packed in hay. This done, all ornaments, knick-knacks, and fancy articles should be packed in boxes by themselves, or stowed away in drawers. It is to be observed, however, that every package as it is closed should have the contents indicated outside, so that, when the time of unpacking arrives, there need be no confusion or vain searching for some article, the whereabouts of which is uncertain. Perhaps the most comfortable way of removing is to send one portion of the things to the new abode a day or two previously to the remainder coming; this will afford time to set some of the rooms in order, and will economise labor and time. It will be found an excellent plan to have the carpets of the sitting-rooms already laid down, so that the various articles of furniture may be at once placed in their assigned positions without any after-moving. Mirrors, looking-glasses, pictures, musical instruments, etc., should be placed in spring vans by themselves, to prevent the jolting motion from breaking, or otherwise injuring them. When a bedstead is taken down, the screws, nuts, etc., should be carefully placed away, so that they may be found in a moment. The various articles of bedding should be rolled up in the bed from which they were taken, and the whole tied up in a soiled sheet or curtain. All articles which are likely to be required for immediate use, upon arriving at the new abode, should be packed by themselves, and placed last in the van, so that they might be taken out and carried to some place handy for use. The best time to commence removing is very early in the morning, the job is then likely to be finished before dark sets in. If this cannot be done in that space of time, it is better to have an extra day or two, rather than allow the furniture to be damaged through being removed hastily in the dark.

1104. Household Weights and Measures. — Wheat-flour weighs one pound to a quart. Indian meal, one pound two ounces to a quart. Butter, when soft, one pound to a quart. Loaf sugar, broken, one pound to a quart. White sugar powdered, one pound one ounce to a quart. Eggs, average size, ten to a pound.

1105. Varnish to Imitate Ground Glass.—To make a varnish to imitate ground glass, dissolve ninety grains of sandarac and twenty grains of mastic in two ounces of washed methylated ether, and add, in small quantities, a sufficiency of benzine to make it dry with a suitable grain; too little making the varnish too transparent, and an excess making it crapy. The quantity of benzine required depends upon its quality—from half an ounce to an ounce and a half or even more; but the best results are got with a medium quantity. It is important to use washed ether, free from spirit.

1106. The Art of Conversation.—The art of conversation is deserving of cultivation, as it forms one of the greatest charms of society. The following rules ought to be observed by those who wish to acquit themselves creditably in this department of etiquette:—Speak distinctly, neither too rapidly nor too slowly. Accomodate the pitch of your voice to the hearing of the person with whom you are conversing. Never speak with your mouth full. Do not whisper or

talk in an under tone to any one person when others are present, it is extremely disrespectful to the company generally, and compromises the person whom you address as well as yourself. Dispense with superfluous phrases and vulgar ejaculations, such as, "Well, I should think," "Don't you see," "I say," "You know," etc. Adapt the topics of your discourse to what you conceive to be the taste and capacities of those present. Avoid politics, theology, and all other matters involving strong differences of opinion, especially in the presence of ladies. Never interrupt any one while speaking, and if when about to make a remark, another person essays to speak, suffer him to proceed. *A Gentleman* should render his conversation interesting and agreeable, by an even flow of language, and by occasional recitals and anecdotes, calculated to affect and impress the hearer. He should avoid long and tedious narratives, eschew quotations from foreign languages, and avoid pedantry generally. Punning is a low and offensive habit; and when jokes are made, others should be left to laugh at them. A gentleman should never assume an intellectual superiority over another, and should not betray impatience at, or signify dissent to the arguments of others, if not precisely in accordance with his own. *A Lady* who wishes her conversation to be agreeable, will avoid conceit or affectation, and laughter which is not natural and spontaneous. Her language will be easy and unstudied, marked by a graceful carelessness, which, at the same time, never oversteps the limits of propriety. Her lips will readily yield to a pleasant smile; she will not love to hear herself talk, and her tones will bear the impress of sincerity. If these rules are borne in mind and acted upon, the members of both sexes cannot fail to render their conversation invariably agreeable, and their society consequently always welcome. To all we would say, cultivate the art of conversation.

1107. The Restoration of the Apparently Drowned.—The following instructions for the restoration of the apparently dead from drowning, are the result of extensive inquiries made by the National Lifeboat Society, of England. As they contain the most recent information on the subject, it is a duty incumbent on each of us, not only to read, but to *study them*, and thus be prepared to render prompt and timely assistance to those who may need it.

1108. How to Proceed.—Send immediately for medical assistance, blankets, and dry clothing, but treat the patient *instantly* on the spot, in the open air, with the face downward, whether on shore or afloat; exposing the face, neck, and chest to the wind, except in severe weather, and removing all tight clothing from the neck and chest, especially the braces. The efforts to *restore breathing* must be commenced immediately, and energetically persevered in from one to two hours, or until a medical man has pronounced that life is extinct. Efforts to promote *warmth*, and *circulation*, beyond removing the wet clothes and drying the skin, must not be made until the first appearance of natural breathing. For if circulation of the blood be induced before breathing has recommenced, the restoration to life will be endangered.

1109. To Restore Breathing.—Place the patient on the floor or ground, with the face downwards, and one of the arms under the forehead, in which position all fluids will more readily escape by the mouth, and the tongue itself will fall forwards, leaving the entrance into the windpipe free. Assist this operation by wiping and cleansing the mouth. If satisfactory breathing commences, use the treatment described below to promote warmth. If there be only slight breathing, or no breathing, or if the breathing fails, then—

1110. To Excite Breathing.—Turn the patient well and instantly on the side, supporting the head, and ex-

cite the nostrils with snuff, hartshorn, and smelling salt, or tickle the throat with a feather, etc., if they are at hand. Rub the chest and face warm, and dash cold water, or cold and hot water alternately on them. If there be no success, lose not a moment, but instantly—

1111. To Imitate Breathing.—Replace the patient on the face, raising and supporting the chest well on a folded coat or other article of dress. Turn the body very gently on the side and a little beyond, and then briskly on the face, back again; repeating these measures cautiously, efficiently, and perseveringly about fifteen times in the minute, or once every four or five seconds, occasionally varying the side. [*By placing the patient on the chest, the weight of the body forces the air out; when turned on the side this pressure is removed, and air enters the chest.*] On each occasion that the body is replaced on the face, make uniform but efficient pressure with brisk movement on the back between and below the shoulder-blades or bones on each side, removing the pressure immediately before turning the body on the side. During the whole operation let one person attend solely to the movements of the head and of the arm placed under it. [*The first measure increases the expiration—the second commences inspiration.*] Whilst the above operations are being proceeded with, dry the hands and feet; and as soon as dry clothing or blankets can be procured, strip the body, and cover or gradually reclothe it, but taking care not to interfere with the efforts to restore breathing. Should these efforts not prove successful in the course of from two to five minutes, proceed to imitate breathing by Dr. Sylvester's method.

1112. Doctor Sylvester's Method.—Place the patient on the back, on a flat surface, inclined a little upwards from the feet; raise and support the head and shoulders on a small, firm cushion or folded article of dress placed under the shoulder-blades. Draw forwards the patient's tongue, and keep it projecting beyond the lips; an elastic band over the tongue and under the chin will answer this purpose, or a piece of string or tape may be tied round them, or by raising the lower jaw the teeth may be made to retain the tongue in that position. Remove all tight clothing from about the neck and chest, especially the braces.

1113. To Imitate the Movements of Breathing.—Standing at the patient's head, grasp the arms just above the elbows, and draw them gently and steadily upwards above the head, and *keep them stretched* upwards for two seconds. [*By this means air is drawn into the lungs.*] Then turn down the patient's arms, and press them gently and firmly for two seconds against the sides of the chest. [*By this means air is pressed out of the lungs.*] Repeat these measures alternately, deliberately, and perseveringly, about fifteen times in a minute, until a spontaneous effort to respire is perceived, immediately upon which cease to imitate the movements of breathing, and proceed to *induce circulation and warmth.*

1114. Treatment after Natural Breathing has been Restored. — Commence rubbing the limbs upwards, with firm grasping pressure and energy, using handkerchiefs, flannels, etc. [*By this measure the blood is propelled along the veins towards the heart.*]

The friction must be continued under the blanket or over the dry clothing.

Promote the warmth of the body by the application of hot flannels, bottles, or bladders of hot water, heated bricks, etc., to the pit of the stomach, the armpits, between the thighs, and to the soles of the feet.

If the patient has been carried to a house after respiration has been restored, be careful to let the air play freely about the room.

On the restoration of life, a teaspoonful of warm water should be given; and then, if the power of swal-

lowing has returned, small quantities of wine, warm brandy and water, or coffee, should be administered. The patient should be kept in bed, and a disposition to sleep encouraged.

1115. GENERAL OBSERVATIONS.—The above treatment should be persevered in for some hours, as it is an erroneous opinion that persons are irrecoverable because life does not soon make its appearance, individuals having been restored after persevering for many hours.

1116. CAUTIONS.—Prevent unnecessary crowding of persons round the body, especially if in an apartment.

Avoid rough usage, and do not allow the body to remain on the back unless the tongue is secured.

Under no circumstances hold the body up by the feet.

On no account place the body in a warm bath, unless under medical direction, and even then it should only be employed as a momentary excitant.

In no case should any liquids be put into the mouth while the body remains in a state of insensibility.

1117. To Clean Japanned Articles. — In cleaning tea trays, bread pans, candle-sticks, and other articles made of japan ware, hot water should not be used, as it will produce fractures and cracks; lukewarm water is the best to use. To remove grease, let the water be just warm enough to melt it; then wipe the articles with a cloth, and if they appear smeared, sprinkle a little flour over them, and wipe it clean off.

1118. Gum Starch.—Pound two ounces of fine white gum arabic to powder, put it into a jug and pour on it a pint or more of boiling water, according to the degree of tenacity required; cover the jug and let it remain for the night. On the following morning, pour the liquid carefully from the dregs into a clean bottle, cork it, and keep it for use. A tablespoonful of this, stirred into a pint of starch which has been made in the usual manner, will give to shirtfronts, wristbands, collars, etc., a fine gloss which not only enhances their appearance, but tends to preserve them for a longer period than ordinarily.

1119. To Polish Varnish.—Take two ounces of tripoli powdered, put in an earthen pot with water to cover it, then take a piece of white flannel, lay it over a piece of cork or rubber, and proceed to polish the varnish, always wetting it with the tripoli and water. It will be known, when the process is finished, by wiping a part of the work with a sponge and observing whether there is a fair even gloss. When this is the case, take a bit of mutton suet and fine flour, and clean the work.

1120. To Wash White Lace. —Take a bottle covered with clean linen or muslin, and wind the lace round it, securing the ends with a needle and thread, not leaving the edge outward, but covering it as you proceed. Set the bottle upright in a strong cold lather of white soap and very clear soft water, and place it on the stove to warm, or boil. Rub the suds up and down the lace gently, and when clean, rinse it, by plunging the bottle into a bucket of clear warm water. Dry it in the sun, then take it off; and iron or mess it; but do not starch it.

1121. Lighting and Management of Fires. — Although this would appear a simple process, yet, from inattention and want of thought, it very frequently fails. *Lighting.* The best way is to lay a few pieces of inflammable coal at first on the bottom bars, but without covering them entirely; then lay on the paper or shavings, then the wood, and on that some pieces of round coal of the size of eggs, and no small coal: when the whole is kindled, let it burn up before any more is added. If the small coal be put on first, it is sure to choke the fire, by filling up the vacancies, and preventing the air from having access to the centre. The coal laid at the bottom will take fire by the time that

the wood is nearly burnt out, and will, by its flame, keep the fire alight. If a fire be thus prepared and kindled, there is no reason why it should go out, and it ought to burn up with certainty when left to itself. *Management.* This is as important as the lighting; coal should not be thrown on in too large a quantity at a time, as it causes the chimney to smoke; it also suffers a great deal of the hydrogen to be distilled off, and consequently a large portion of the heat required to warm the room escapes up the chimney in the shape of smoke. The use of the poker is, in many instanees, misunderstood; its office is to open a languishing fire, so as to admit the free passage of air into it, or apportioning the remains of a half-burned fire so as to eoncentrate the heat, whilst the parts still ignited are opened to the atmosphere. A fire properly lighted and judieiously managed, will give double the amount of heat at half the cost, that a badly lighted and ill-regulated fire affords.

1122. Coal Clubs.—Associations formed for the purpose of ensuring members a supply of coal during the winter season. The principles of management are, for the members to pay a certain sum weekly, proportionate to the quantity of eoal they require; and the supply thus seeured is delivered at a specified time. The simple reeommendation of a eoal-club is, that it encourages persons to make a provision for the winter, which, under other circumstances, they would probably negleet. So that by the outlay of a small sum weekly at a favorable season of the year, an important domestie comfort is secured, which in many eases must otherwise be dispensed with, or purchased at an exorbitant rate. At the same time, due caution should be exercised in joining a eoal-club; some of them are merely speculations got up by unscrupulous persons, for the purpose of disposing of inferior eoal at a high priee; but the eriterion in this, as well as every other assoeiation of a similar character, is to aseertain the general mode of eonducting business, the names of the promoters, the length of time it has been established, and other corroborations of soundness and fair dealing.

1123. Comparative Value of various kinds of Fuel.—The comparative value of fuel of different kinds of carbonaceous substanees has been found by experiment to be as follows:—

1lb of	chareoal wood	melts	95lb	of iee.
"	good eoal	"	90	"
"	coke	"	84	"
"	wood	"	32	"
"	peat	"	19	"

1124. Fire Escape.—The escape from a house whieh is on fire is sometimes prevented by the stairs being of wood, and either burning or already destroyed. In such an emergency there are only two means of eseape—issuing by the roof, and so reaching the next house, or deseending into the street through the window. As the former mode of escape is the readiest and less dangerous, every house should be provided with a trap door opening on to the roof. Where this is wanting, a ropeladder should be kept in every sleeping apartment; this ladder may be either furnished with steps, or simply knotted at intervals, to support the hands and feet in their descent. A large iron nail or bracket might be fastened near the window, so that in the moment of danger the rope-ladder might be instantly hung on it without any delay. Where, from earelessness, no fire-escape of this kind has been provided, two or more sheets or blankets taken from the bed may be tied to eaeh other by the eorners, and thus a rope may be formed. Public fire-eseapes afford the readiest and most convenient form of rescue; but, as the arrival of them eannot always be ealeulated on, the precautions previously mentioned should always be taken. When a person has to traverse rooms or passages where the fire is aetually raging, he should creep along the

floor on his hands and knees, and if the opportunity is afforded him, he should envelope himself in a damp blanket, by means of which he will be enabled to escape from the threatened danger comparatively unhurt.

1125. To Extinguish Fires.—Fires might often be readily extinguished by the timely application of a few buckets of water. When an apartment is found to be on fire, the door, chimney, and windows should be immediately closed, if possible, and only opened for the purpose of projecting water on the flames. By this means the supply of air will be cut off, and rapid combustion prevented. The same rule applies to the lower doors and windows of a house, which are often injudiciously kept open or removed, with the mistaken view of rendering assistance. The mixture of certain agents with the water employed for extinguishing fire has also been found to increase its efficacy. Sal-ammoniac, in the proportion of five ounces to the gallon, exerts this influence in a remarkable degree. Several other articles, as common salt, pearlash, or kitchen soda, act in the same way, though less effectively. It must also be observed that all of these remedies must be applied before the fire has reached great height, otherwise little or no effect will be produced.

1126. To Extinguish a Fire in a Chimney.—Throw on it salt, or a handful of flour of sulphur, as soon as you can obtain it; keep all the doors and windows tightly shut, and hold before the fireplace a wet blanket, or other woollen article, to exclude the air.

1127. Red, Green, and Blue Fire.—In pyrotechny it often happens that colored fires produce disagreeable fumes or burn too slowly. In order to surmount these difficulties, a German chemist, J. R. Braunschweiger, has been making some experiments, and, as the result of his labors, gives the following recipes:

Red fire, 9 parts nitrate of strontia; 3 parts shellac; 1½ parts chlorate of potash.

Green fire, 9 parts nitrate of baryta; 3 parts shellac; 1½ parts chlorate of potash.

Blue fire, 8 parts ammonium sulphate of copper; 6 parts chlorate of potash; 1 part shellac.

It is only necessary to reduce the shellac to a coarse powder. The nitrate of strontia, baryta, and the ammonia salt ought to be intimately incorporated with the shellac before adding the chlorate of potash; and, as any hard rubbing or percussion of the latter salt in a mortar might occasion an explosion, it is better to mix by transferring from one sheet of paper to another, and not attempt to rub the mixture at all. By the above mixture, the suffocating odor of sulphurous acid is avoided, and the fireworks can be let off without inconvenience in any large room. To obviate the danger of spontaneous combustion, the chlorate of potash could be stored in a separate bottle and mixed when wanted, in the way described.

1128. Hints on Setting Grates.—In the first place the size and situation of your room must be considered. A room eighteen feet square will require a grate twenty inches long—if it has a northern exposure, or the ceiling is of unusual height, it should be twenty-two. A grate should not be placed more than six or seven inches above the hearth; nor should the opening above it be more than twelve or fourteen inches. The depth of the fire-chamber, measuring from front of grate to back-wall, should be ten or eleven inches; if your grate is not that deep, you should put in an extra bar of half inch square iron, which may rest on bricks at either end. One of the most important points is to have your grate, or extra bar, an inch or an inch and a half from the back-wall. The backwall should be built up *solid* from the hearth, until it reaches the height of three or four inches above the level of the grate in front,

when it should be sloped forward, on a line that will strike the front of the chimney just at the opening; leaving a space of not more than two or three inches for the escape of smoke. A tile, the proper length and width to form the slope is now made, but if this cannot be obtained, the wall should be made as smooth as possible. In setting grates, fire-brick should always be used.

1129. The Eyes, and How to Use Them.—When the eye is in a perfectly healthy condition, we ought to be extremely careful not to tamper with it so as to derange any of its functions; for instance, it is highly injurious for us to pass suddenly from the dark to the full blaze of a lighted room, or still worse into that of open daylight. In some extreme cases blindness has been the result of such an act. In viewing an object we should take care that as much of it as possible is in focus at once, but we must not fall into the error of straining the eye to give us the perfect picture, otherwise injury will result. Very great benefit will arise from the use of the power of concentration of sight: thus we ought to endeavour to see only one part of an object at a time, and to gradually complete the survey of its different parts, in order to get the correct idea of it; for if we look too generally at objects, we shall find that they are none of them properly in focus, and a confusion of ideas is the consequence. It is injurious to the sight to be continually using the eye for one distance of objects only, as from want of use the eye loses that ready adjustment so essential to the perfect appreciation of objects seen at different distances apart: thus we should never look too steadfastly nor for too long a period at the characters of a book, but from time to time look off at objects at a greater distance; this plan not only secures the use of the adjusting powers of the eye, but relieves the retina from the great strain it has undergone by the too violent contrast in the image formed on it, namely, black and white. We should avoid as much as possible viewing objects with one eye only, but on the contrary endeavour to direct both eyes on them, in order that we may form a more correct idea of their size and distance; for by the use of one eye we can appreciate neither size, solidity, nor distance, in a complete and satisfactory manner. In reading by an artificial light, we should be very particular in the position of the candle with respect to the book, so as to prevent as much a possible the direct light from entering the pupil. The best means of accomplishing this end is, to have the lamp or source of light so placed that it may shine over the shoulder on to the paper or book we are perusing, for it will readily be seen that by this arrangement the eye receives no more light than that proceeding immediately from the page before it. Long sighted persons should accustom themselves to read with rather less light, and somewhat nearer to their eyes, than is naturally agreeable, while the short-sighted should habituate themselves to read with the book as far off as possible. Never read by twilight, nor by fire-light, nor, if the eyes are disordered, by candle-light. These matters may appear very trivial to those whose sight is not yet impaired, but constant attention to them will ensure the enjoyment of that great blessing, perfect sight, for many years beyond the usual limit.

1130. Imperfect Sight.—Imperfect sight may be defined as that state of vision in which objects are not easily discerned with distinctness in ordinary light and at the usual distances. One of the first symptoms of a change in the eye is, that we are obliged to remove every object to a greater distance from the eye before we can see it distinctly. Thus in perusing a newspaper, or any small print, we are sometimes obliged to hold it nearly at arm's length before distinct vision is produced; whereas in healthy vision we should have been able to bring about the same result at a dis-

tance of twelve inches from the eye. Although we may see the type quite clearly under these circumstances, it is a system that is highly detrimental to the eyesight, and should on no account be persevered in, as it will ultimately increase the failure of the eye, and oblige the optician to use much stronger glasses before a remedy can be applied than if assistance had been sought at an earlier stage of the disorder; whereas it not unfrequently happens, that those who take to spectacles in time are after a while enabled to lay them aside and to see objects with the unassisted eye as clearly as before their use.

Another sign of the decline of sight is when we are obliged to hold the candle between the book or paper and the eye before perfect distinctness can be attained; this causes a contraction of the pupil necessary to our perfect appreciation of objects. Now nothing can be more injurious to the sight than this habit, for the strain thrown on the eye by so much light in such close proximity will eventually dull the perception of the visual organs. One unmistakable indication that we require spectacles is, that on reading a book or newspaper the letters appear after a short time confused, and run into the other, appearing double and treble, and convey the idea of the eye having a veil or mist before it. Immediately an individual discovers that the above applies to his own sight, he should without delay seek the assistance of glasses, and if care be taken in the selection, he will be entirely relieved from the inconvenience.

1131. To Choose Spectacles.—When defective vision is first experienced, glasses with a slight degree of convexity will do, which opticians call the first sight; but as, after a few years, the eyes become still flatter, glasses more convex, are necessary to enable a person to see to read distinctly at the usual distance; and on every increase of a few years, it will be required to have them more and more convex, or what is termed older sight. The more convex the glasses, the more they magnify, or the larger they make objects at the same distance appear. In general, when the eye is perfect, six or eight inches is the usual distance at which we hold small objects to view them, such as a book; but this distance is not exactly the same for all persons. To choose spectacles when the eyes are beginning to be defective through age, begin by trying glasses of the lowest magnifying power, or what is called the youngest sight; if these enable a person to read at the usual distance, they are the kind to be employed; but if vision be still indistinct, try a higher magnifyng power, and so on until the proper spectacles are found; but be careful not to use a higher magnifying power than is really necessary, otherwise the evil of age may be brought on prematurely. Many persons whose sight is defective, postpone the use of spectacles from too nice a regard to appearances; the folly of such a proceeding is obvious; by overtasking the vision, already weak, an injury is done to the eyes frequently beyond the reach of remedy, or the contrivances of art.

1132. Hints to Dancers.—i. When a gentleman conducts a lady to a private dance, they should enter the room arm in arm, and pay their respects to the lady of the house—the lady being allowed to make her salutations first.

ii. In France a gentleman asks a lady to dance without an introduction; but in America, if a gentleman wish to dance with a lady with whom he is not acquainted, he must seek an introduction through the hostess, or a common friend.

iii. At private parties, a lady should not refuse to dance with a gentleman unless previously engaged, and on no account is she to dance with any gentleman when she has refused another for the same dance.

iv. In dancing a lady should deport herself with grace and ease, not displaying either an excess of spright-

liness or a deficiency of it; while all her movements should be dictated by refinement and modesty.

v. When dancing, a gentleman should hold the hand, and encircle the waist of the lady as lightly as possible; a contrary mode of deportment is both rude and vulgar.

vi. A gentleman should not dance too frequently with the lady whom he has escorted to the ball, nor, indeed, with any other lady; such a proceeding giving the appearance of exclusiveness, and a contempt for the remaining portion of the assembly.

vii. A gentleman should pay some attention to those ladies who are otherwise neglected, and lead them out quietly and unostentatiously, without endeavoring to make it appear that he is conferring a favor, or undergoing a personal sacrifice.

viii. The *top* of the room is at the same end with the orchestra, but where the music occupies the centre of the room, the top is then at that end nearest the door.

ix. A gentleman should always endeavor to place his partner as near to the top as possible. It is ill-bred, however, to take a place previously engaged, or when forming a country dance to push in at the middle, or upper end; the proper station under such circumstances is below the last couple who are standing up.

x. While a gentleman is dancing he should pay exclusive attention to his partner, and engage her in light and agreeable conversation; at the conclusion of the dance he should lead her to a seat; he may then leave her with a bow, or if she please, converse for awhile; he should, however, immediately retire, when another gentleman advances to claim the lady for the next dance.

xi. At private parties, refreshments are frequently handed round, and it is the duty of a gentleman to see that the lady, in whose company he is at the time, is provided with the refreshment she desires.

xii. When any guests wish to retire from a private dance, they should bid the host and hostess a quiet farewell; or if this is impracticable, leave without doing so.

xiii. After a ball—say, during the course of a week—the host and hostess should be visited, but the visit must be of short duration.

xiv. Any acquaintance formed at a dance does not entitle a gentleman to salute the lady on meeting her afterwards, unless she first recognizes him.

xv. Full dress must be worn at all balls, both public and private. White or primrose kid gloves should be worn both by ladies and gentlemen, and not taken off during the whole of the evening, except at supper time.

1133. Quadrilles.—Dances in which four couples or eight persons are engaged, a couple standing on each side of a square. The lady is always placed on the gentleman's right. There are many sets of quadrilles, the figures in each varying from the others, but in by far the greater number of instances one set is adhered to, which is termed Payne's first set. This set consists of four figures and a finale. The couples at top and bottom first perform a figure; then it is performed by the others, and so on.

Le Pantalon.—First right and left, set and turn partners; ladies' chain, which is performed by the two ladies giving their right hands to each other, and changing places; then their left hands to the gentlemen; and turn round; and the same back again to places. Now promenade (each couple holding hands crossed) to opposite side; then half right and left back to places.

L'Eté.—The first lady and opposite gentleman advance and retire, dance to the right, then to the left, cross over, lady and gentleman changing places. Dance to the right and the left, cross again to their own places, and turn their partners. The second lady and the first gentleman do the same.

La Poule.—The first lady and opposite gentleman cross over, giving

their right hands; back again, giving their left and their right to their partners, and set, forming a line; promenade to opposite places. The two who began, advance and retire; advance a second time; the lady curtsies, and the gentleman bows, and return. The two couples advance and retire, half right and left to their original places.

La Trenise.—Ladies' chain; set, and turn partners; first couple advance and retire; advance again; the gentleman returns, leaving the lady on the left of the opposite gentleman; the two ladies pass or cross to the opposite side, changing to opposite corners, during which the gentleman passes between them, and sets. The ladies cross over again, and pass to opposite corners, while the gentleman returns to his place, and sets. The first couple set and turn. During these performances the gentleman at the bottom of the dance stands still. The movement being finished, a similar figure is performed by himself and partner.

La Finale.—All eight dance or chassé across, changing places with their partners, and set at the corners; back again to places, and set. After this, *L'Eté* is danced, concluding with chassé across. This finale is danced another way. All eight promenade round the room, to their own places. The first and second couple advance and retire; advance again, chaining partners and promenade. This is called the galopade finale.

1134. Galopade Quadrille.—1. Galopade. 2. Right and left, sides the same. 3. Set and turn hands, all eight. 4. Galopade. 5. Ladies' chain, sides the same. 6. Set and turn partners, all eight. 7. Galopade. 8. Tirois, sides the same. 9. Set and turn partners, all eight. 10. Galopade. 11. Top lady and bottom gentleman advance and retire, the other six do the same. 12. Set and turn partners, all eight. 13. Galopade. 14. Four ladies advence and retire, gentlemen the same. 15. Double ladies' chain. 16. Set and turn partners, all eight. 17. Galopade. 18. Poursette, sides the same. 19. Set and turn. 20. Galopade waltz.

1135. Basket Cotillon.—Leading couples forward and back, cross over, chassez, back to places and turn partners; ladies to the centre, join hands, and balancez; gentlemen do the same, forming a circle outside; ladies curtsy and gentlemen pass their arms over, and in front of the ladies; balances all; half promenade; back and turn partners to places. Other couples the same.

1136. Country Dance.—First lady and bottom gentleman advance to centre, salute, and retire; first gentleman and bottom lady the same. Ladies promenade, turning off to the right down the room, and back to places, while gentlemen do the same turning to the left; top couple remain at bottom; repeat to the end of dance.

1137. The Sociable.—The first four, forward and back, half right and left; the side couples do the same; all chassez and take corner partners, and half promenade. As each one has obtained different partners, the same figures are repeated until each one gets his own partner.

1138. Caledonian Quadrilles.—*First Figure.*—The first and opposite couples hands across, round the centre, and back to places—set and turn partners. Ladies' chain—half promenade. Half right and left, repeated by the side couples. *Second Figure.*—The first gentlemen advance and retire twice. All set at corners, each lady passing into the next lady's place on the right, promenade by all; repeated by the other couples. *Third Figure.*—The first lady and opposite gentleman advance and retire, bending to each other. First lady and opposite gentleman pass round each other to places. First couple cross over, having hold of hands, while the opposite couple cross on the outside of them—the same reversed. All set at corners, turn and resume partners. All advance and retire twice, in a circle with hands joined—turn partners. *Fourth Figure.*—The

first lady and opposite gentleman advance and stop; then their partners advance; turn partners to places. The four ladies move to right, each taking the next lady's place, and stop. The four gentlemen move to left, each taking the next gentleman's place, and stop. The ladies repeat the same to the right; then the gentlemen to the left. All join hands, and promenade round to places, and turn partners, repeated by the other couples. *Fifth Figure.*—The first couple promenade or waltz round inside the figure. The four ladies advance, join hands round, and retire—then the gentlemen perform the same—all set and turn partners. Chain figure of eight half round and set. All promenade to places and turn partners. All change sides, turn corners and back again to places. Finish with grand promenade.

1139. Curtsy and Bow Cotillon.—First couple bow and curtsy twice to the couple on the right, moving from right to left at each salutation, then hands right and left; repeat the same to the other couples, and back to place. The other couples perform the same figure.

1140. Circassian Circle.—A dance, as follows:—The company is arranged in couples round the room, the ladies being placed on the right of the gentlemen; after which the first and second couples lead off the dance. *Figure.*—Right and left set and turn partners—ladies' chain, waltz. At the conclusion, the first couple with the fourth, and the second with the third couple, recommence the figure, and so on till they go completely round the circle, when the dance is concluded.

1141. Coquette.—First lady chassez to the gentleman at her right, turns him, or coquettes him by turning another;. then dances the same to each gentleman in succession, ending with her partner, after each lady has gone the round, each gentleman does the same.

1142. The March Cotillon.—First couple promenade to the right, around the other three (who remain in their places) till they arrive at the place whence they started, but facing a contrary direction from first position; the third couple then promenade round the other three, and take their position directly behind the first, facing the same way; second couple promenade round and take their places next to the third; fourth couple promenade round the whole, and take their position behind the second, each lady in the set taking the arm of her partner. *March.*—All march forward till they arrive at the end of the room; the ladies turn to the right and the gentlemen to the left, as fast as they reach the place where the first couple turned—the ladies march down on one side and the gentlemen on the other, till they arrive at the opposite end of the room—here the ladies meet their partners, and taking arms, again turn up the room to their places, where they stop or march again as the leader of the dance may direct. When there are a number of cotillons on the floor at once, after the promenade, and previous to the march, they may form a line, or number of lines, reaching the whole length of the room, without deranging the figure. When the march is ended, the two columns of ladies and gentlemen face each other—gentlemen standing directly opposite their partners. The figure generally terminates with the following dance: The couple at the top of the column balance to each other, turn partners twice round, take hands and promenade down between the columns, till having arrived at the foot, the lady takes up her position on the ladies' side, and her partner opposite; after they have begun the promenade down, the second couple balance, and so on with the third and fourth until all have gone through; as fast as they leave the top, the column move up so that each couple starts from the same place. In the promenade down the centre the couples may use a promenade, march,

dance, or walk. The dance being finished, both columns move forward and back — forward again — then all turn partners to places, in which movement, every one should be careful to take the same hand or side which they occupied previously to the promenade.

1143. Fast and Slow.—First couple balancez to side couple on right, cross hands, hold fast, and half round with the right, half back with the left; the same to third and fourth couples; then the grand chain, thus: extend right hand to partner, then left to next lady, and so on half round to partner; partners bow and curtsey—this should be in very slow time—then repeat the same in quick time to places. The other couples do the same.

1144. The Virginia Reel.—All the ladies stand in a line on one side, the gentlemen standing opposite facing their partners. Top lady and bottom gentleman advance and meet each other half way face to face and back to places. Top gentleman and bottom lady do the same. First couple meet again turning each other with the *right* hand, and back to place; second couple the same. First couple meet again and swing with the *left* hand; second couple the same. First couple meet and swing with *both* hands; second couple the same. First couple meet and *dos-à-dos* or back to back, and to places; second couple the same. The top lady then swings her opposite partner round with right hand, and then swings every gentleman down the line with her *left* hand, and her partner after each one with her *right* hand; he (her partner), while she is swinging each gentleman, swings that gentleman's partner with his left hand, and after each is ready to offer his own partner his right hand. When they reach the bottom of the line they cross hands, galopade up to the top and then down again, where they take places, and commence dancing again to the top couple, who in their turn repeat the same figures. And so on with each couple until the top again reach their places, when the reel is ended.

1145. How to Arrange the Hair Becomingly.—The manner in which the hair of the head should be arranged is an important subject of consideration. This is especially the case with females, whose hair has always been considered a personal ornament, which is capable of adding to the beauty of the face, and, in some instances, of compensating for the absence of beauty, by its luxurious and appropriate arrangement. In a *physiological* point of view, the arrangement of the hair is governed by a law as precise as that which regulates any other secondary vital function. Thus, the hair radiates from a single point—the crown—to every part of the circumference; and in making the toilet, this natural arrangement should be interfered with as little as possible. The arrangement of the hair, in an *artistic* sense, is governed by certain general principles in relation to the face and figure. In all cases the oval should be sedulously observed by any and by all means of art. When the line of beauty does not exist, let the hair be so humored that the deficiency shall not be remarked. In dressing the hair, certain styles are adopted, which are termed the fashion for the time being; but as the fashion is never confined to one style, but always admits of some three or four, every female has it in her power to adopt that style which to her is most becoming. Nevertheless, the arrangement of the hair in many cases betrays an unpardonable ignorance of the general principles of taste, or a want of judgment in its individual application. For instance, nothing is more common than to see a face which is somewhat too large, made to look grossly large and obtrusive. A long thin face is often made to look longer and thinner; and a plump round face is frequently rendered expressionless. Every face has its peculiar advantages and disadvantages, and the art of dress-

ing the hair beeomingly, consists in displaying the former, and remedying or relieving the latter. Therefore, every lady should study her face in eonnection with her figure, before adopting any particular style of wearing the hair; and if it be found to interfere with its symmetry of form, it should be rejeeted, or modified so as to suit the partieular case. Where a plait or coronet is worn, it should not be placed too low on the brow, as by dividing the forehead, it may be said to cut up and eonsequently mar its breadth and beauty. All extreme styles of wearing the hair should, as a matter of course, be avoided, as they are offenees against good taste and propriety, and only serve to excite ridicule.

1146. Preservation of the Hair.—Under ordinary circumstances the hair may be preserved by the most simple means. In a sound and healthy constitution, the best preserver and beautifier of the hair is regular and careful eleaning. For this purpose brushes are useful, but in using them it should be borne in mind that it is the *head* which requires brushing more than the hair; while, therefore, the brush is actively applied to the roots of the hair, the surface should be brushed with a light and gentle hand. Occasional washing with pure water is to be recommended, providing the hair is not very long, so as to render drying difficult. To assist in drying it thoroughly, dip the brush into a very little hair powder and brush it out again; after that, a little pomatum may be brushed in.

Cutting the hair, is an operation which should not be performed too frequently, nor delayed too long; in ordinary cases it would be as well to have a small portion of the hair removed every month or six weeks. Where the hair is in an unhealthy eondition, especially where much has fallen off, and a partial and impoverished growth has risen up to represent that whieh is lost, the short and impoverished hairs should be earefully and persistently eut, with the view of giving them bulk and strength, and improving their growth. The frequent plucking out of withered hairs is, also, productive of benefit, as the process is necessarily accompanied by much stimulation of the skin, which promotes the growth of the hairs individually and generally.

The excessive use of grease in dressing the hair, is a eommon error which cannot fail to be productive of injurious consequences. There is a natural oil secreted by the hair, which in a healthy state should supply the requisite amount of moisture; sometimes this is defective, and the hair becomes dry and harsh, it is then proper to supply the deficiency by a little pomatum or oil. When the artificial grease is applied in excessive quantities, it produces a matting of the hair, prevents the pores of the scalp from acting freely, and thus prevents the supply of natural moisture from being eommunieated freely to the hair.

The kind of grease to be used, should be animal fats in preferenee to vegetable oils, the latter being apt to become rancid, and not possessing such active stimulant properties as the former.

The use of soap in washing the hair, should be cautiously and sparingly observed, as it is apt to ehange the color and texture of the hair. A little white soap dissolved in spirits of wine, is more effectual and less injurious than soap alone. After this the hair should be well washed with pure water.

When greyness of the hair shows itself, it is an indication of want of tone in the hair-producing organs, and if this tone can be restored, the hair will cease to change, and at the same time further change will be prevented. The plan of cutting as previously recommended, eombined with judicious plueking, tends very much to prevent the extension of greyness.

Keeping the head too much covered is ealculated to prove injurious to the hair, as by this means an excessive

amount of heat is generated, which tends to enervate and relax the hair-producing organs, and consequently weaken and thin the hair; for this reason the wearing of nightcaps is to be condemned, and the practice of wearing the hat throughout the day is attended with similar evil consequences.

Curling the hair, especially when frequently resorted to, is a most pernicious custom, the inordinate amount of heat that is employed to produce the desired effect, drying up the natural oils, and otherwise injuring the roots and texture of the hair.

Sudden heats and chills of all kinds are also productive of ill consequences, and in short whatever accident or operation the hair is subjected to, widely differing from its normal state, must produce, more or less, those diseases and that decay to which it is peculiarly liable. In every case it should be remembered, that the preservation of the hair depends not only on local stimulation, but also on constitutional treatment. This truth is the more to be insisted upon, as a common notion prevails that the mere application of certain specifics will remedy defects without any other aid.

1147. Baldness.—The proximate cause of the falling off of the hair is an insufficiency of nourishment in the pores of that part of the skin where the hair has deen accustomed to grow. This will be the more clearly understood, when it is known that each hair has a separate existence in a tubular form, which, in order to sustain its vitality, imbibes a certain amount of moisture given out by the pores of the skin; when this sustenance is from any cause withheld, the hair withers and falls away, in the same manner that the stem of a plant, when deprived of its sap, droops and decays. Baldness is ordinarily accepted as one of the natural indications of approaching age; but when it occurs in the early stages of life, it is then unnatural, and assumes the form of a disease. Sometimes it shows itself by a general falling off of the hair, while at other times the diminution is partial, and confined to round or irregular patches. Under these circumstances, the disorder is more frequently the result of a want of mere local vigor, than the consequence of constitutional decline; and the remedy mainly depends upon stimulating applications energetically and unremittingly employed. *General baldness* is preceded by an unusual loosening of the hair, which, upon combing or brushing, comes off in large quantities. In order to arrest this, persons who have short hair, should immerse the head in cold water morning and night, dry the hair thoroughly, and then brush the scalp until a warm glow is produced. With females, however, who wear the hair long, this mode of proceeding is almost impracticable, on account of the difficulty experienced in drying the hair; it is better, therefore, in these cases to brush the scalp until redness and a warm glow are produced, and then rub in among the roots of the hair a lotion compounded as follows: Eau-de-cologne, two ounces; bay rum, two ounces; spirits of ammonia, and tincture of cantharides, of each one drachm. This should be applied daily until the growth of the hair is restored. When the *baldness occurs in patches*, the skin should be well brushed with a soft tooth-brush which has been dipped in distilled vinegar, and afterwards brushed in the manner previously pointed out. Both these modes of treatment are prescribed by Dr. Erasmus Wilson, who has for many years made the diseases of the skin and the hair his peculiar study.

1148. To Wash a Black Veil.—Mix bullock's gall with sufficient hot water to make it as warm as you can bear your hand in. Then pass the veil through it. It must be squeezed, and not rubbed. It will be well to perfume the gall with a little musk. Next rinse the veil through two cold waters, tinging the last with

indigo. Then dry it. Have ready in a pan some stiffening, made by pouring boiling water on a very small piece of glue. Put the veil into it, squeeze it out, stretch it, and clap it. Afterwards pin it out to dry on a linen cloth, making it very straight and even, and taking care to open and pin the edge very nicely. When dry, iron it on the wrong side, having laid a linen cloth over the ironing-blanket. Any article of black lace may be washed in this manner.

1149. To Clean Silver or Gold Lace.—Lay the lace smooth on a woollen carpet or piece of woollen cloth, and brush it free from dust, then burn rock alum and powder it fine, and afterwards sift it through a lawn sieve; then rub it over the lace with a fine brush, and in so doing it will take off the tarnish and restore it to its brightness, if it be not too much worn on the threads.

1150. To Fix Crayon Drawings.—Prepare the paper by washing it with a strong solution of isinglass; when quite dry, the drawing may be made upon it, after which it should be inverted, and held horizontally over steam. The steam melts the size, which absorbs the charcoal or crayon, and the drawing thus becomes fixed. This process may be repeated several times during the progress of a drawing, the effect being increased each time.

1151. Cool Rooms.—Open all the windows and doors at daylight, and let them remain open at least until sunrise, then close them, and darken the windows, and they will remain delightfully cool and fresh for a great part of the day, besides keeping out the dust and flies. For want of this precaution many splendid parlors have a close sickening smell as you enter them, wholly incapacitating you from enjoying the beautiful things around you and enjoying the visit to your friends.

1152. To Clean Ostrich Feathers.—Cut four ounces of white soap into small pieces and dissolve them in four pints of water, rather hot, in a large basin; make the solution into a lather by beating it with birch rods or wires. Immerse the feathers, and rub them well with the hands for five or six minutes. Then rub any stained parts with a piece of cap-paper, shake them, wipe them gently with a cloth, and set them to dry.

1153. To Clean Oil Paintings.—Mix an ounce of spirits of turpentine with an ounce of spirits of wine; with this mixture, wash the paintings gently with cotton wool, then wash them with turpentine alone; if there are any stains which this will not remove, the paintings should be washed with an infusion of kali; when dry, put on a thin varnish, composed of two ounces of mastic dissolved in six ounces of turpentine; at the end of a few days, add another coat of varnish, such as is sold by the color makers for oil paintings may be added.

1154. Number of Nails in a Pound.—The following table will enable persons, who know how many nails they want, to buy just that number:

3 *d*	700
4 *d*	300
6 *d*	160
8 *d*	100
9 *d*	75
10 *d*	60
12 *d*	40
16 *d*	35
20 *d*	22

1155. Rennet.—This is the prepared stomach of young sucking animals, usually that of the calf. It is prepared by freeing the stomach of the outer skin, and fat, washing it well, and then putting it into strong brine for some hours, after which it is hung up to dry.

1156. Liquid Rennet is prepared as follows: Take fresh rennet, cut small, twelve ounces; salt, three ounces; knead them together, and leave in a cool place for six weeks; then add, water, eighteen ounces; alcohol, dilute

(or whiskey), two ounces. Let it stand for twenty-four hours before using. A couple of teaspoonfuls will curdle a pint or more of milk.

1157. To Clean Kid Gloves.—Have ready on a table a clean towel, folded three or four times, a saucer of new milk, and another saucer with a piece of white soap. Take one glove at a time, and spread it smoothly on the folded towel. Then dip in the milk a piece of clean flannel, rub it on the soap till you get off a tolerable quantity, and then, with the wet flannel, commence rubbing the glove. Begin at the wrist, and rub lengthways towards the end of the fingers, holding the glove firmly in your right hand. Continue this process until the glove is well cleaned all over with the milk and soap. When done, spread them out, and pin them on a line to dry gradually. When nearly dry, pull them out evenly, the cross-way of the leather. When quite dry, stretch them on your hands.

1158. To Wash Kid Gloves.—Wash the hands thoroughly clean, then put on the gloves and wash them, as though you were washing your hands, in a basin containing benzine or turpentine, until quite clean; then hang the gloves up in a warm place, or where there is a free current of air, which will carry off all the smell of the turpentine.

1159. Disinfectants, and How to use Them.—Disinfectants are agents which prevent, arrest, or destroy infection; and are, therefore, the hygienic safeguards against all contagious, malarious, and infectious diseases. As it is important that every one should know how to prevent the spread of dangerous diseases, we lay before our readers the following extracts from an able paper which was read by Dr. Moreau Morris, before the "Medical Library and Journal Association," of New York City. In the practical application of disinfectants, they are divided into two classes:

First.—Disinfectants which arrest fermentation and decomposition; such as

Carbolic acid and its preparations.
Sulphate of zinc.
Sulphate of iron.
Sesquichloride of iron.

Second.—Disinfectants which effect chemical decomposition, viz.:

Chloride of lime.
Sesquichloride of iron.
Chlorine.
Lime.
Sulphurous acid.

The directions for using disinfectants may be given in general terms, as follows:

Carbolic acid is used for fumigating rooms, bedding, clothing, etc., by throwing a few drops on a hot surface, or by placing a portion of the dissolved acid in a dish, and floating it in a larger vessel of hot water. For basements, cellars, sinks, etc., one pound of crystals to six gallons of water; or a powder may be made by mixing one ounce of acid, with four pounds of slaked lime.

Sulphate of zinc is useful in solution with water, or in combination with carbolic acid, for disinfecting clothing, bedding, etc. The formulæ usually employed are as follows:

Sulphate of zinc, 8 ounces.
Water, 3 gallons.

or

Sulphate of zinc, 8 ounces.
Carbolic acid, 1 ounce.
Water, 3 gallons.

The latter has been found effective in destroying the infection upon bedding and clothing in scarlet fever and small-pox; and will doubtless be found efficient in other contagious fevers.

Sulphate of iron is frequently used for disinfecting sinks; it is cheap and useful.

Chloride of Lime.—The fermentation of filth is checked by its presence; vegetable germs are destroyed by it. It needs to be liberally employed. Its use in relapsing fever proved invaluable, as likewise with other malignant fevers, depending upon filth and foul

atmosphere. It is used either in a dry form sprinkled upon floors, or in solution upon the floors and wood-work of infected rooms. In damp places, to avoid the hygroscopic properties of the lime, carbonate of soda is added.

Sesquichloride of iron by its chemical action, decomposes sulphuretted hydrogen, one of the most poisonous products of privy decomposition.

Chlorine Gas has been extensively used, and with the best results. To disinfect a house thoroughly, it should be fumigated with chlorine gas, produced by adding muriatic acid to chloride of lime; the wood-work and floors should then be washed with a solution of chloride of lime, and finally the walls and ceilings should be whitewashed—chloride of lime and carbolic acid being added in small quantity to the lime wash. Dr. Morris, after detailing a case in which it was demonstrated that the poison of relapsing fever could be destroyed by thorough fumigation with chlorine gas, says: "So firm is our conviction of the possibility of controlling this particular form of contagion by this means, that at present we use no other."

Sulphurous Acid is also a most valuable agent for fumigating rooms or clothing that have become infected. It is used specially in the disinfection of the contagion of small-pox, scarlet and yellow fevers. An ordinary room requires for fumigation about two pounds of sulphur, which may be placed upon an iron or tin dish from ten to twelve inches from the floor, pouring on a small quantity of alcohol, and then setting it on fire, immediately leaving the room after having closed it up tightly. The sulphur burns out, and liberates abundant quantities of sulphurous acid fumes.

Sesquichloride of Iron, with the addition of a small portion of carbolic acid, is now used in the city of New York by the butchers, night scavengers, and in small-pox districts by order of the Board of Health; it is called the Metropolitan Disinfectant. It is prepared by dissolving the hydrated sesquioxide of iron (bog ore) in muriatic acid; to this is added ten per cent. of carbolic acid. This forms the fluid in a concentrated form. It is largely diluted with water at the time of using.

Infected clothing may be restored and made innocuous by exposing it to a temperature not below 200 deg. F.; the infectious germs of certain diseases, such as scarlet, yellow, typhus and ship fevers are entirely destroyed.

1160. Dr. Moreau Morris' Methods.—To describe particularly the methods deemed best, we may state that, for the sanitary care of patients sick with small-pox, scarlatina, measles, diphtheria, and yellow fever, the general directions would be as follows:

The sick room should always be chosen on the upper floor, if possible. It should be kept well ventilated, with such precautions as not to expose the patient to direct draughts of air, occasionally covering the patient entirely, and throwing wide open all doors and windows for a few minutes, replacing the impure atmosphere with a pure one. Frequent slight fumigation of the room by throwing a few drops of carbolic acid upon a hot surface. Suspending in the room small pieces of cloth soaked in a dilute solution of carbolic acid, 100 to 200 parts of water, also in the hallways adjoining. These to be occasionally renewed. This can be regulated according to the effects upon the patient; if irritating to the bronchial membrane or nasal passages, should be still more diluted. All vessels for receiving discharges of any kind from patients should contain some disinfecting fluid therein, such as before mentioned as suitable for clothing, and immediately after use be emptied and cleansed by boiling water. Water-closets and privies should also be kept clean and frequently disinfected. The Metropolitan Disinfecting Fluid, or carbolic acid, may be used for the latter purpose. All articles of clothing

or bedding, handkerchiefs or rags, used by or around the patient, should be placed in the disinfecting solution before mentioned (viz.: Sulph. zinc, eight ounces; carbolic acid, one ounce, and three gallons of water), for an hour before they are removed from the room, then thoroughly boiled, and hung in the open air to dry.

When convalescence has taken place, the patient should be thoroughly washed with warm soap and water, and if some mild alkali is added, the better; fresh clean clothes throughout put on. He then leaves the room or floor entirely. The room should then be immediately closed, and undergo a thorough fumigation, either with sulphurous acid fumes or chlorine gas, and kept closed from two to four hours as the case may be, after which it may be opened, cleansed, whitewashed and aired. During attendance upon the patient, the nurse or persons who may necessarily be obliged to be in the sick-room, should have a change of clothing, and not be allowed to pass to other rooms before they change. And such clothing as is worn in the room should be fumigated and disinfected, the same as that used by the patient.

In the event of the death of the patient, the room, bedding, and clothing should be fumigated and disinfected, and so soon as the corpse is prepared, the bed should be disinfected and burned. The same plan of disinfection applied as in cases of convalescence.

1161. Storm Glass.—This description of storm-glass is very elegant and economical, and from its simplicity and lowness of price, together with the fidelity of its prognostications, is worthy of more attention than it has yet received. This instrument may be prepared as follows:—Take two drachms of camphor, half a drachm of pure nitrate of potash (saltpetre), and half a drachm of ammonia; triturate them together until they are thoroughly pulverized, add proof spirits two ounces, and water two ounces. Put the whole into a long narrow bottle, such as eau-de-cologne is sometimes sold in; cork the bottle close, wax the top, and make a very small aperture in the cork with a red-hot needle. The bottle may then be hung or placed in any stationary position towards the north, otherwise a shade of some sort must be put up to protect it from the sun, which would soon prove injurious to it, and cause the liquid to become oily.

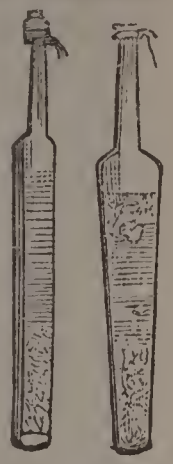


Fig. 1. Fig. 2.

The indications which it gives are of this nature:— If the atmosphere be dry, and the weather promises to be fine, the solid part of the composition will be closely collected at the bottom, and the liquid above will be quite clear; but on the approach of *rain*, the solid matter will appear gradually to rise, and small crystalline stars will be observed to float about in the liquid, which, however, will remain otherwise pellucid. On the approach of *winds*, flakes of the composition, apparently in the form of leaves or feathers, will appear on the surface of the liquid, which in this case will seem thick, and in a state of fermentation. These indications often begin to exhibit themselves twenty-four hours before the actual breaking of the storm, and after a short experience in observing the changes of the materials in the glass, not only the degree of violence of the coming storm may be readily estimated, but also its direction, for the quarter of the compass from which the wind blows will be indicated by the solid particles lying more closely to the side of the glass opposite to that whence the tempest comes.

Figure 1 represents this glass as indicating fair weather; *figure* 2 as indicating wind and rain.

1162. Weather Proverbs.—The following weather proverbs of various countries, are given for the purpose of familiarizing the various

theories to the mind and assisting the memory:

A rainbow in the morning is the shepherd's warning.
A rainbow at night is the shepherd's delight.

Evening red, and next morning gray
Are certain signs of a sunny day.

When the glow-worm lights her lamp
Then the air is always damp.

If the cock goes crowing to bed,
He'll surely rise with a watery head.

When you see the gossamer flying
Be ye sure the air is drying.

When black snails cross o'er your path,
Then a cloud much moisture hath.

When the peacock loudly bawls
Soon there'll be both rain and squalls.

When ducks are driving through the burn
That night the weather takes a turn.

If the moon shows like a silver shield
Be not afraid to reap your field;
But if she rises haloed round
Soon shall we tread on deluged ground.

When rooks fly sporting high in air
It shows that windy storms are near.

A cold May and a windy
Makes a fat barn and findy.

The hollow winds begin to blow;
The *clouds* look black, the *glass* is low;
The *soot* falls down, the *spaniels* sleep,
And *spiders* from their cobwebs peep.
Hark! how the *chairs* and *tables* crack,
Old Betty's joints are on the rack;
Her *corns* with shooting pains torment her,
And to her bed untimely send her.
Loud quack the *ducks*, the *sea-fowls* cry;
The distant *hills* are looking nigh.
The smoke from chimneys first ascends,
Then, spreading, back to earth it bends.
'Twill surely rain, we see with sorrow
No working in the fields to-morrow.

1163. Make a Beginning.—Young man make a beginning. The first weed pulled up in the garden, the first seed put into the ground, the first shilling put into the savings' bank, and the first mile travelled on a journey, are all very important things; they made a beginning, and thereby a hope, a promise, a pledge, an assurance that you are in earnest with what you have undertaken. How many a poor, idle, erring, hesitating outcast is now creeping and crawling his way through the world, who might have held up his head and prospered, if, instead of putting off his resolutions of amendment and industry, he had only made a beginning.

1164. To Read Gas-Meters.—Gas-meters have three indexes: On the right hand index, 1 stands for 100; on the middle index, 1 stands for 1,000; and on the left-hand index, 1 stands for 10,000. To read the meter, begin with the left-hand index and write down the figure last passed by the pointer; then the figure last passed by the pointer of the middle index, and finally the figure last passed by the pointer of the right-hand index. Add two ciphers (00) to this and it will give the gas registered, in cubic feet. Suppose the first index to have registered 3, the second 6, and the third 7; then 36,700 feet would be the amount of gas registered. At the end of the quarter read the meter, and subtract the former number registered, from the latter, and the remainder will show the amount of gas consumed. Gas consumers should not lose sight of their meters, but from time to time, take an account of the gas burned so as to ascertain that the amount consumed is in accordance with the time it extends over, and also if it bears the same ratio as the gas burned in former periods. For the want of this care, consumers have frequently to pay for gas which they do not consume, through some defect in the meter.

1165. Paste.—This substance, which is so useful for many domestic

purposes, may be made as follows: Stir two tablespoonfuls of flour into half a pint of cold water until all lumps are broken, then pour it into a pint of boiling water, stirring in the meantime; afterwards let it boil up once or twice and take it off.

1166. BOOKBINDERS' PASTE.—Mix wheaten flour first in cold water, then boil it till it assumes a glutinous consistence; and mix with the flour a fourth, fifth, or sixth of its weight of powdered alum. If required stronger, a little pounded resin may be added.

1167. SUPERIOR PASTE.—Mix flour and water, with a little brown sugar, and a very small quantity of corrosive sublimate in powder; boil it until sufficiently thick and smooth. The sugar will keep the paste flexible, and prevent it sealing off from smooth surfaces, and the corrosive sublimate will check its fermentation; a drop or two of oil of aniseed, lavender, or bergamot, will prevent the paste turning mouldy.

1168. One Thing at a Time.—Step among your neighbors, reader, and see whether those among them who have got along smoothly, and accumulated property, and gained a good name, have not been men who bent themselves to one single branch of business. It must be so. Go out in the spring, when the sun is far distant, and you can scarcely feel the influence of its beams, scattered as they are over the wide face of creation, but collect those beams to a focus, and they kindle up a flame in an instant. So the man that squanders his talents and his strength on many things, will fail to make an impression with either; but let him draw them to a point—let him strike at a single object, and it will yield before him.

1169. Digestion.—By this term is understood that process by which the food taken into the stomach is converted into nutriment, and, finally, into blood, to maintain the circulation and supply the wear and tear of the body. The internal coat of the stomach is dotted with numerous small glands, which secrete a very sour acrid fluid, called the gastric juice, which, as soon as food reaches the stomach, is poured out in great quantity. This gastric juice—which is composed of water, common salt, phosphate of soda, potash, and muriatic acid—immediately surrounds the mass of pulpy food, and the acid of the secretion acting on the alkaline ingredients of the salvia in the food, commences a gentle chemical action, from which a small amount of gas is liberated as the gastric juice gradually works its decomposing way into the mass, converting it layer by layer into a soft thick creamy substance. When a sufficient quantity of this has been collected, it finds its way to the lower mouth or door of the stomach, where its weight acting as a stimulant on the outlet or valve, the passage opens, and the first gush of digested food passes into the duodenum, followed, at short intervals, by further quantities, till the entire mass, that entered the upper end of the stomach as crushed and moistened food, quits the lower extremity in the form of a creamy nutriment, and takes up its place in the small intestines as chyme.

The refuse blood, in its passage through the liver back to the heart, secretes, as it diffuses itself over the lobes of the liver, a bitter, acrid, heavy-smelling greenish yellow fluid called the bile, which, as secreted, is conveyed to the gall bladder; at the neck or duct of which, as it opens into the duodenum, it receives a salivary contribution from the pancreas, the object of which is to correct or modify the acridity of the bile. Upon the acidulated chyme in the small intestines, the combined alkaline secretions of the liver and pancreas are poured; the effect of which is directly to change and separate the chyme into two parts, one a thin rich white fluid, the concentrated essence of all the nutriment, called chyle, and the other, the gross solid impurities of the food

from which all nutrition has been extracted. The chyle is then absorbed by the mouths of innumerable vessels, and carried to one centre or reservoir, from which a vessel or long hollow tube ascends, named the thoracic duct, terminating in the junction of the left subclavian and internal jugular veins, as the united branch enters the heart; along this narrow channel, collecting nutriment from the lymphatics in its course, this vital and vitalizing principle, this white blood, the chyle, proceeds from its reservoir in the glands and lymphatics of the bowels, till it empties itself into the heart.

1170. Time required to Digest the various articles of Food.—We give below, Dr. Beaumont's table, showing the mean time of DIGESTION of various articles of food, as ascertained by experiments on a Canadian who had a permanent artificial opening in the stomach, produced by a gun-shot wound. By means of this aperture Dr. Beaumont was enabled to introduce into the stomach various articles of diet, and from time to time to withdraw them, in order to examine the changes undergone.

It should be remembered, that the rapidity of digestion varies greatly according to the quantity eaten, the amount of previous exercise, the state of body and mind, etc., etc.

ARTICLES OF DIET.	PREPARATION	TIME.
		h. m.
Rice	boiled	1 00
Pig's feet, soused	boiled	1 00
Tripe, soused	boiled	1 00
Eggs, whipped	raw	1 30
Trout, salmon, fresh	boiled	1 30
Trout, salmon, fresh	fried	1 30
Soup, barley	boiled	1 30
Apples, sweet, mellow	raw	1 30
Venison steak	broiled	1 35
Brains, animal	boiled	1 45
Sago	boiled	1 45
Tapioca	boiled	2 00
Barley	boiled	2 00
Milk	boiled	2 00
Liver, beef's, fresh	broiled	2 00
Eggs, fresh	raw	2 00
Codfish, cured dry	boiled	2 00
Apples, sour, mellow	raw	2 00
Cabbage, with vinegar	raw	2 00
Milk	raw	2 15
Eggs, fresh	roasted	2 15
Turkey, wild	roasted	2 18
Turkey, domestic	boiled	2 25
Gelatine	boiled	2 30
Turkey domestic	roasted	2 30
Goose, wild	roasted	2 30
Pig, sucking	roasted	2 30
Lamb, fresh	broiled	2 30
Hash, meat and vegetables	warmed	2 30
Beans, pod	boiled	2 30
Cake, sponge	baked	2 30
Parsnips	boiled	2 30
Potatoes, Irish	roasted	2 30
Potatoes, Irish	baked	2 30
Cabbage	raw	2 30
Spinal marrow, animal	boiled	2 40
Chicken, full grown	fricasseed	2 45
Custard	baked	2 45
Beef, with salt	boiled	2 45
Apples, sour, hard	raw	2 50
Oysters fresh	raw	2 55
Eggs, fresh	soft boiled	3 00
Bass, fresh	broiled	3 00
Beef, fresh, lean rare	roasted	3 00
Beefsteak	broiled	3 00
Pork, recently salted	raw	3 00
Pork, recently salted	stewed	3 00
Mutton, fresh	broiled	3 00
Mutton, fresh	boiled	3 00
Soup, bean	boiled	3 00
Chicken soup	boiled	3 00
Dumpling, apple	boiled	3 00
Cake, corn	baked	3 00
Oysters, fresh	roasted	3 15
Porksteak	broiled	3 15
Mutton, fresh	roasted	3 15
Bread, corn	baked	3 15
Carrot	boiled	3 15
Sausage, fresh	broiled	3 20
Flounder, fresh	fried	3 30
Catfish, fresh	fried	3 30
Oysters, fresh	stewed	3 30
Beef, fresh, lean	roasted	3 30
Beef, with mustard	boiled	3 30
Butter	melted	3 30
Cheese, old	raw	3 30
Soup, mutton	boiled	3 30
Oyster soup	boiled	3 30
Bread, white, fresh	baked	3 30
Turnips	boiled	3 30
Potatoes	boiled	3 30
Eggs, fresh	hard boiled	3 30
Eggs, fresh	fried	3 30
Green corn and beans	boiled	3 45
Beets	boiled	3 45
Salmon, salted	boiled	4 00
Beef	fried	4 00
Veal	broiled	4 00
Fowls, domestic	boiled	4 00
Fowls, domestic	roasted	4 00
Soup, beef, vegetables, etc.	boiled	4 00
Heart, animal	fried	4 00
Ducks, wild	roasted	4 30
Cabbage	boiled	4 30
Pork, fat and lean	roasted	5 15

1171. How to Build Ice-Houses.—An ice-house may be economically built in the following manner, and will give entire satisfaction, if the dimensions be not less than twelve feet square by twelve feet high for the space to contain the ice. Presuming that the ice-house is only for family use, select a shady position and dig a cellar two feet deep, and let the floor or bottom be properly smoothed off with a descent of eighteen inches in the twelve feet, leading to one corner. It should be made perfectly water-tight and smooth with coating of cement; and a wall, also laid in cement, should be erected therein three feet high, formed on the top with a rabbet on the inner edge of two sides for the purpose of receiving the joists for the inner lining of the house; make the size any way you please, only not less than twelve feet square inside; erect on this wall your double frame, carefully boarded with tongue-and-groove boards on the inside, and made as tight as possible. Pack the space between the inner and outer lining with dry sawdust or tan bark up to the beginning of the roof; let the roof be steep, and also lined inside with boards, but not filled, and let a space under the peak be left open three inches to conduct the warm air to a ventilator on either side of the peak, secured by wide slats in such a position as to make ingress of rain impossible. Another ventilator must be placed in the centre of the peak, the openings of which must be larger in proportion to the house (say one foot square inside), and entirely secured against rain. Let the door for filling and taking out be on the north side of the gable, arranged like the roof, not filled, and a drain pipe of three to four inches, properly cemented, run from the lowest point of the bottom of the pit at least ten feet (fifteen feet is better) under ground, with a good descent for taking off the water, and your house is ready to receive the ice, and it will keep it well for all purposes.

The filling of the house should be done in this manner: Place, at the bottom of the said pit, clean corn-stalks, eighteen inches deep, closely packed and levelled; then cut your ice in square blocks, as even square as practicable, and place them on the corn-stalks close together, like tiles in a hall; and when six layers are completed, take a watering pot with a middling fine nose, and pour clean water gently over all crevices left, until they are closed by the freezing of said water; continue then the filling, repeating at intervals the watering process until you reach the beginning of the roof; then let the ice settle, and, if you find that the crevices have not been completely frozen, choose a very cold day to finish the watering operation. You can then put in ice enough to go half way to the peak, and you can enjoy the luxury of ice until the new crop. To make the handling of the ice easy, have a beam extending three feet from the roof outside for block and tackle, and another one inside near the peak for the same purpose; also fix an easy ladder on the inner wall on the side where the door is, and the ice can be nicely removed with the tackle and ice tongs without any trouble. When taking the ice some distance from the house, it would be advisable to use a blanket to put it in while it is being transported, which blanket should always be kept aired, and should be cleaned every time it is used. Such a building should be painted from time to time on the outside; and whenever the ice is finished, the corn-stalks should be removed and the house well ventilated, so as to be free from any unpleasant odors. If so cared for, it will last a great many years, and will require very few repairs.

1172. Eating Breakfast.—This being the meal which is to support the body during the most active part of the day, great care should be taken to have it served with undeviating regularity. When the breakfast is served

punctually and satisfactorily, it gives an impetus and a cheerfulness to the whole proceedings of the day; but a late breakfast frequently disarranges a whole chain of events. Indeed, such is the sensibility of the stomach, when recruited by a good night's rest, that, of all alteration in diet, it will be most disappointed at any change of this meal—either of the time of serving it, or of the quantity or quality composing it—so much so that the functions of a delicate stomach will be under such circumstances frequently deranged throughout the whole day after.

Breakfast is to the strong and healthy a most enjoyable meal, and it may always be considered as one of the best signs of health when a person can eat and digest a good breakfast, especially after exercise. The circumstance that the strong and healthy can enjoy with impunity a good breakfast has given an erroneous idea as to the advisability of invalids making it a hearty meal, and still worse, of prefacing it by exercise. With very many, perhaps the majority of people in this country, especially in towns, the interval between rising and breakfast is not one of great vigor; the powers both of body and mind are undoubtedly recruited if there has been due rest; but they are not in full action, and if too long an interval be permitted to elapse before food is taken, they become exhausted, and still more so if physical exertion is had recourse to. With persons of a weak constitution exhaustion of any kind before breakfast, such as walking, gardening, bathing, or even cold sponging, is almost sure to prove injurious. For, in these cases, exertion instead of improving digestion, weakens it. The erroneous opinion so generally formed on this point arises no doubt from the fact that exercise and exertion before breakfast induce an appetite; this may very possibly be the case, but at the same time it should be borne in mind that *digestion* is also required, in order that food may perform its proper office; and if one exists without the other, the effect is rather injurious than otherwise. The explanation is, that the nervous power which should have aided the process of digestion has been used up, and a full breakfast taxes the already overwrought nervous energy beyond the powers of endurance.

1173. The Time at which Breakfast Should be Taken must depend upon a variety of circumstances. Generally speaking, about an hour after rising will be found the most appropriate. By that time the powers of the system have fully recovered from the inactivity of sleep, and the functions of the stomach and other organs have then come into full play. If abstinence is prolonged beyond this interval, the physical and mental energies, unsupported by the supply of food which indirectly gives them birth, gradually lessen, and incipient exhaustion ensues. The fluids of the stomach and smaller tissues begin to act upon the coats of those viscera instead of on the food, and an unpleasant feeling of hunger, or a loss of appetite comes on as a natural consequence. The exceptions to this general rule are, that many persons, even those who are not in the habit of taking supper, from a weakened condition of the system, experience an uneasy sensation of languor, accompanied by a feeling of debility and depression, which unfit them for the slightest exertion until they have taken food. On the other hand, many persons retire to rest at a late hour, immediately after eating a hearty supper, and rise at a disproportionately early hour, so that the food has not had time to digest properly; and in such cases the breakfast hour may be delayed beyond the usual interval, so that the food of the previous night may have the opportunity of passing from the stomach before a fresh supply is introduced. When breakfast cannot be taken within a reasonable period after rising, a biscuit or crust of bread may be eaten in the interim.

1174. Eating Dinner.—This is the principal meal of the day, and with some persons the only one when food in anything like quantity is partaken of. As a rule it is better not to introduce too great a variety of things into the stomach at one and the same repast, as the different properties of the ingredients cause them to disagree, and to give too great an amount of labor to the digestive organs. The same rule holds good with regard to drink, and the beverage first chosen should be continued throughout the repast. Although animal food may, generally speaking, form the chief part of the dinner, it may be omitted occasionally with benefit, and poultry or fish alone form the meal. Vegetables should be freely partaken of, as they assist in the assimilation and digestion of stronger foods, and are of a pleasant and cooling nature. While dinner is being eaten, the mind should be at ease, otherwise the digestive process will be materially interfered with, and the body will experience little or no nourishment from the food it receives. Persons engaged in business and professional pursuits are in the habit of snatching a brief interval from their avocations, despatching their dinner hurriedly, and resuming their occupation the instant it is eaten; a custom at once reprehensible and highly injurious. However much a person may be absorbed in his business or profession, he should consider that in order to attend to his duties properly, and carry out his views successfully, it is necessary that the body should receive nourishment sufficient to meet the demands made upon it, and as dinner is the chief meal of the day, some interval, the most convenient for the purpose, should be set apart, in which the dinner may be eaten leisurely and with enjoyment.

1175. The Proper Hour for Dinner depends in a great measure upon a person's avocations; the most natural time is about one or two o'clock, but where it cannot be taken at this time, a light lunch may be had; at all events, the proper interval between dinner and the meal that precedes or follows it, should not exceed four or five hours. The contrary practice of eating nothing between breakfast and five or six o'clock in the evening, and then sitting down to a hearty meal, is highly injurious, as the lengthened fast has tended to enervate the powers of the stomach, and the excessive quantity of food introduced lies in an undigested mass for some hours; this unwholesome practice, repeated daily, soon tells upon the digestive organs, and at length occasions permanent disease. The rational summary, therefore, in connection with this subject is, that if two hours' relaxation from business can be obtained about five or six hours after breakfast, the best plan, unquestionably, is to dine then. But if this be impossible, and active exertion of mind or body must be continued for several hours longer, it will be far better to eat some light refreshment at noon, and then postpone dinner not only till business is over, but till half an hour or an hour's repose have allowed its attendant excitement or fatigue to subside. By this means the stomach will enter upon its duties with vigor, and the dinner be digested with greater comfort and despatch, than when sitting down to table the moment work is finished. Another assistance to the moral enjoyment and physical benefit to be derived from dinner, consists in partaking of it under cheerful aspects. It would be as well, therefore, to eat this meal in the midst of pleasant and social companionship, instead of, as is too frequently the case, making it a solitary repast with the newspaper or a book for a companion.

1176. Eating Supper.—In ordinary cases, animal food once a day is sufficient for most persons; if, therefore, an individual for whom it is enough, after a hearty meat dinner adds a superfluous meat supper, the chances are that he will pay the pe-

nalty in disturbed sleep, and rise in the morning with a furred tongue and a feeling of languor. This is especially the case if the superfluity be indulged in after a dinner made in the latter part of the day. If dinner is eaten early, if much excereise is taken between that and the evening meal, and if supper is not eaten at too late an hour, many persons may take with benefit a moderate proportion of animal food. It is undoubtedly better not to eat a meal heavy, either in quantity or quality, before a period of inactivity and sleep so prolonged as that of the night; but there is no doubt that much of the bad character of supper as a meal arises from its being too often one of superfluity. Those to whom suppers are the most injurious are the plethoric, or such as suffer from head symptoms. Some persons, however, especially dyspeptic invalids, do themselves harm by abstaining from suppers of every kind, even after the principal meal has been taken early in the day. This abstinence is adopted under an erroneous impression that all suppers are bad, and the consequence is that the stomach suffers from uneasy sensations during the night, and a sense of exhaustion ensues in the morning, both of which may be prevented by a moderate supper of light food, such as is generally found to agree the best; thus many a dyspeptic subject will find his morning meal better digested after a light supper, than without one.

1177. Ill Breeding, says the Abbé Bellegarde, is not a single defect; it is the result of many. It is sometimes a gross ignorance of decorum, or a stupid indolence, which prevents us from giving to others what is due to them. It is a peevish malignity which inclines us to oppose the inclinations of those with whom we converse. It is the consequence of a foolish vanity, which hath no complaisance for any other person; the effect of a proud and whimsical humor, which soars above all the rules of civility; or, lastly, it is produced by a melancholy turn of mind, which pampers itself with a rude and disobliging behavior.

1178. Etiquette. — The art of politeness and correct behavior, not only in accordance with kind feeling and natural instincts, but also in obedience to certain laws laid down by society. It is the observance or the disregard of these rules which tend chiefly to distinguish the gentleman from the boor; and in order to enter good society, and to be received with a welcome, it is as necessary to practise etiquette as it is to be well dressed. The best method of attaining a knowledge of this important art is to observe the behavior and gestures of persons moving in the best circles, and in similar exigencies to imitate, but not ape, the example that has thus been set. Much information may also be obtained from treatises that have been written from time to time upon this subject.

1179. Street Etiquette.—When a lady is met or a person of either sex in a superior position, the hat should be lifted as a mark of respect. A gentleman should not presume to notice a lady, until the lady recognizes him; the lady should also be the first to advance her hand to be shaken. Upon the occasion of shaking hands the gloves should not be removed. When a person bears evident signs of being in a hurry, he should just be acknowledged, and then suffered to pass on. When an acquaintance betrays a wish not to be recognized, he *should not be seen.* Modes of recognition which consist of slapping persons on the back, tapping them on the shoulder, pulling their coat tails or their hair, calling in their ear, or shouting out their name in the street are vulgar and absurd antics, reprehensible in the extreme.

1180. The Bow.—A bow ought to be made by bending the upper part of the body and the head forward in a gentle curve; the action should be neither too labored nor too curt, but the body should be inclined forward,

and suffered to regain its erect position with an elastic sort of motion. The occasions upon which this gesture of respect is to be performed are innumerable, such as on entering or leaving a room, meeting with or addressing a lady, appealing to a public assembly, taking wine at dinner, tacitly admitting an error, or permitting an adverse opinion to override your own, acknowledging a compliment, signifying attention when individually addressed, bidding adieu to persons when the acquaintance is slight, etc. On the other hand it must not be repeated too frequently so that it becomes a mark of servility and excessive obsequiousness. In this, as in many other instances involving particular points of etiquette, a person's own good sense and correct taste must step in and define the line, within which it would be rudeness to fall short, and beyond which it is absurdity to overstep.

1181. Personal Address.—The advantage of this qualification is constantly making itself apparent in our daily intercourse with the world, both social and commercial. It is, in fact, an element necessary to the attainment of success in every grade of profession, and in every branch of trade. From the highest to the lowest, from the richest to the poorest, a "good address" not only tends to advancement and popularity, but by bespeaking the goodwill of others also contributes to happiness. Every one, therefore, should endeavor to attain this advantage, more especially as it is easily acquired, and once known can never be forgotten. But the question arises—what is good address? The answer to this inquiry is subject to modifications arising out of the various tastes and opinions of individuals. To a certain extent good address consists in adapting ourselves to the habits and manners of those with whom we are required to associate, and the business we have to pursue. Excessive politeness would be felt to be as repulsive by one class of persons, as an extreme familiarity by another class. Were a commercial traveller to call upon a tradesman, and in endevoring to transact business affect the manners and tone of a man of fashion, the tradesman would probably be so disgusted that no effort of persuasion would induce him to transact business with a person against whose absurd foppery he had conceived a deep dislike. On the other hand, were a traveller to assume an undue freedom, and under the guise of bluntness or candor make abrupt and satirical remarks, he would equally defeat his purpose. Good address, especially in its relation to our prospects in life, consists in a careful observance of the manners and the tastes of others, and in such an adaptation of our own conduct thereto, as shall excite favorable impressions, and beget for us the confidence and respect of those with whom we mingle. It should ever be borne in mind, that truthfulness, frankness, and modesty are among the chief elements of good address, which is but the manner of exhibiting our principles, opinions, and objects to others. Practical men of the present day are too discerning to be long deceived by hypocrisy, and too acute in their judgments not to discover rectitude of principle where it really exists.

1182. Introduction.—In strict etiquette, persons are supposed to be strangers to each other until they have gone through the ceremony of introduction. This being one of the rules of society, it is incumbent on those having any authority to introduce persons who are strangers to each other, so as to put them at their ease, and advance the harmony of the company generally. When you introduce a person, pronounce the name distinctly, and say whatever you can to make the introduction agreeable, such as, "an old and valued friend," "a schoolfellow of mine," "an old acquaintance of our family." The persons introduced sometimes express some appropriate compliment, likely

to be acceptable. Generally speaking, it is better not to overlay the congratulatory recognition with such phrases as, "I am proud to make your acquaintance;" "I am delighted at having the honor of an introduction to you," etc.; such sentences, in the majority of cases, are unmeaning and insincere, and embarrass, rather than gratify the person to whom they are addressed. On the other hand, the ceremony of introduction should not be conducted with too great an amount of formality and reserve; as though it were an act of condescension on your part to notice the person introduced to you. The truth is, that in this, as in many other points of etiquette, the charm does not reside in the words uttered, or the mechanical carriage of the body, but in the manner and expression, which, with well-bred persons, seldom fails to make itself understood. Inferiors should be introduced to superiors, and gentlemen to ladies. Thus, if a gentleman were walking with a lady, and meet a friend; he should say, with a suitable action, "Mr. So-and-so," and follow it by "Mrs. Such-a-one." It is usual for gentlemen to shake hands when introduced; ladies merely bow. If in a general introduction you are brought face to face with a person whose features and name are familiar; you may say, "I believe I have had the pleasure of meeting you before," and offer him your hand. Immediately after introduction do not be too loud or loquacious, but lead off with one or two remarks on subjects which you suppose will be interesting, thus giving the person you address an opportunity of talking, without oppressing him with the weight of your own conversation.

1183. Invitations.—Invitations are usually expressed in writing, and, where practicable, are sent by hand, not by post. They should be written on superfine paper and inclosed in a neat envelope. In writing the invitation, the day and hour alluded to should be distinctly stated, to prevent misapprehension. Thus, instead of merely saying "Thursday," it should be "Thursday next," or "Thursday, the 20th instant." The nature of the intended entertainment should also be specified, whether dinner, evening party, dance, etc. When an invitation is received, it should be answered as promptly as possible, whether it be accepted or declined; this is not only an appropriate acknowledgment of the kindness extended, but also has its practical use, in permitting those by whom the invitation is issued to regulate their arrangements according to the number of guests expected. When a person neither answers an invitation by attendance or by letter, it is, under ordinary circumstances, considered that the acquaintanceship is no further desired, and is acted upon accordingly. If, therefore, through any error or accident, an invitation should miscarry and not reach the hands of the person for whom it was intended until after the event of which it speaks has transpired, it is a duty which he owes both to himself and his friends to hasten immediately and afford an explanation of the apparent act of rudeness. Repeated refusals to invitations from the same quarter are also regarded as tantamount to a desire for discontinuing the acquaintance, unless it is known that the pleas which have been set up were valid and insuperable. When an invitation is given verbally, the person invited should return an absolute affirmative or negative; and not by an ambiguous answer leave it uncertain as to whether he intends to accept or decline. Answers to invitations given in the name of the lady, and gentleman of the house, should be acknowledged to both; but addressed to the lady alone. The wording either of an acceptance or a refusal of an invitation, should neither be verbose nor high-flown, a few simple words answer all the purpose; for if you acted differently, it would appear in the one case that you

were seldom invited out, and in the other that you deemed your presence of so much consequence as to overload your refusal with a superabundance of apologies, so that those who invited you might not take your absence too greatly to heart. In addressing a note to two or more unmarried daughters in the same family, write, "The Misses Johnson," (supposing that to be the name), and not the "Miss Johnsons." The oldest daughter of the family is properly addressed as Miss Johnson, the younger daughters as Miss Mary Johnson, Miss Mattie Johnson, etc.

1184. Forms of Invitation.—The following forms, with their appropriate replies, may be of service to the uninitiated:

No. 1. Invitation.

Mrs. Brown presents her compliments to Mr. and Mrs. Black, and solicits the pleasure of their company on Thursday evening, the 6th inst.

24 A— Street.

Feb. 4th.

No. 1. Reply.

Mr. and Mrs. Black accept with pleasure Mrs. Brown's polite invitation for the 6th inst.

40 B— Street.

Feb. 5th.

No. 2. Invitation.

Mr. Jones requests the pleasure of Mr. Smith's company at dinner on Wednesday next, at 4 o'clock.

March 12th.

No. 2. Regret.

Mr. Smith regrets that a previous engagement will deprive him of the pleasure of accepting Mr. Jones' invitation to dinner for Wednesday next.

March 13th.

No. 3. Invitation.

Mr. J. P. Lawrence presents his compliments to Miss Anna Marshall, and asks that he may be permitted to wait on her this evening to the Opera.

1024 G— Street.

Dec. 20th.

No. 3. Regret.

Miss Anna Marshall presents her compliments to Mr. J. P. Lawrence, and regrets that sickness will prevent her acceptance of his invitation for this evening.

28 M— Avenue.

Dec. 20th.

1185. Visiting.—Friendly visits may be made in the forenoon; the toilet should be neat without being costly. Visits of condolence should be paid within from a week to a fortnight after the funeral of the deceased; friends of less intimacy should make inquiries, and leave cards. A formal visit should never be made before noon. If a second visitor is announced, it is proper after a few moments for the first visitor to retire, unless he is very intimate both with the host and the visitor announced, or unless the host expresses a wish that the first visitor shall remain. Visits after balls or parties should be made within a week. In the latter, it is customary to enclose your card in an envelope, bearing the address outside; this may be sent by post, if you reside at a distance; but, when residing in the neighborhood, it is polite to send your servant, or to call. In the latter case, a corner of the card should be turned down. All visits of this kind should be short; say from fifteen to twenty minutes. When you are in doubt as to the time, do not look at your watch, but wait for a lull in the conversation. When a new visitor enters a drawingroom, if it be a gentleman, the ladies bow slightly; if a lady, the guests rise. On such occasions, the hat should be held in the hand, unless requested to place it down; then lay it beside you. The last arrival in a drawingroom takes a seat near the mistress of the house. A lady is not required to rise on receiving the visit of a gentleman, nor to accompany him to the door. When the visitor retires, ring the bell for the servant; you may then accompany your guest as far towards the door as the circumstances of your

friendship seem to demand. Request the servant, during the visits of guests, to be ready to attend to the door the moment the bell rings. When you introduce a person, pronounce the name distinctly. Never stare about you in a room, as though you were mentally taking stock of its contents. Be hearty in your reception of guests, and when you detect diffidence, assist the stranger to throw it off.

1186. Card-Leaving.—With persons who mix in respectable society, cards of address are an absolute necessity. When one person calls upon another to whom he is wholly or partially unknown, the card of address is at once the medium of introduction. If a person makes a call upon another who is from home or engaged, the leaving a card is the best method of notifying the fact. When a person is about quitting his or her place of residence, it is usual to pay a farewell visit to friends and acquaintance; and if the lady of the house is absent, a card is left with P. P. C. (*pour pendre congé*) written in the corner. When the lady making a call is married to a gentleman so engaged as to preclude his calling with her, it is considered sufficient if she leave his card at the house for the master of it. In leaving cards upon a married couple, it is usual for the lady to leave only one card, and for a gentleman to leave two. When there are daughters introduced into society, or female friends staying in the house, a card may be left for each of them, if they are personally known to the caller. When you visit a lady, who is the guest of another, always leave a card for the lady of the house. A card is generally left on the day after a party, or within a day or two of that time. The turning up one corner of a card is usually understood to mean that the owner left it personally. The card should be perfectly plain, and the name with simply "Mr." or "Mrs." before it, should be engraved in the ordinary Italian writing, and without any flourishes.

1187. Chairman.—Under this title is comprehended the person who is selected at a public meeting or a dinner to preside over the assembly. The chairman of a public meeting is generally a person of influence and position; he need not necessarily be an orator, for his duties, so far as speaking is concerned, may be confined to a few aptly chosen words, promptly and clearly delivered. He ought to understand parliamentary rules, and should display a bearing both conciliatory and uncompromising, so as to harmonize as much as possible the opposing elements of which public meetings are frequently composed. The chairman of a public meeting has to open the proceedings by rising and shortly explaining the motives for which the meeting has been convened; he then usually calls upon some one individual to speak to the question, and the various speakers follow one another in succession. It frequently happens that several *resolutions* have to be proposed, and it is the duty of the chairman to call upon some person to propose the resolution, and after it has been seconded, to ask the meeting to declare their opinion by *holding up their hands.* If the majority of hands be held up in favor of the resolution, it is then declared to be carried; others are successively disposed of in the same manner. Sometimes an *amendment* is proposed in opposition to the resolution; and as this course of proceeding frequently engenders disapprobation and a display of acrimonious feeling, it is incumbent on the chairman to obtain a hearing for the speaker, and to claim for the amendment the same free and fair discussion as was accorded to the original resolution. When all the resolutions have been passed, the chairman finally rises, generally to acknowledge a vote of thanks which has been previously proposed to him; and that done, he declares the meeting to be ended or adjourned, as the case may be, and bowing politely to his auditors, vacates the chair.

1188. Chairman of a Public Dinner.—The chairman of a public dinner is chosen as much for his social qualities and eloquence as for his influence and position. A person so situated, to be successful, must possess a certain amount of good fellowship; he must have a smile, a nod, and a kind word for all, and a certain free and joyous manner calculated to impart a feeling of comfort and conviviality to the assembled guests. As soon as the chairman receives intimation that all the guests or the majority of them are assembled, and the table duly provisioned, he knocks on the table, and either says grace himself or calls upon some person to do so; the covers are then removed, and the chairman's duties begin. At this period of the dinner, he should chiefly study those placed near him, and who are generally supposed to be the most honored guests, assisting them or seeing that they are assisted according to their wishes. As the repast advances, he should give vent to an occasional apt remark or harmless pleasantry, to bring out backward dispositions, and to circulate good humor and friendly feeling generally. When the dinner is over and the dessert is set on, *toasts* are in order. At large public dinners a toast-master is generally provided, who stands behind the chairman, and calls out the toast that is about to be proposed; but at festivals more limited and less ceremonious, the chairman has to propose the toasts himself. He may than indicate such person as he deems most fit to reply. Independent of the toasts incidental to the particular meeting, there are usually a round of patriotic sentiments proposed; these are taken in their order, and together with any others written down on a slip of paper, which the chairman has by him, and which should be ticked off or marked out as they are disposed of. Generally there is what is termed *the toast of the evening*, and in proposing this the chairman is expected to dwell somewhat fully, and to speak in his best and most eloquent manner. If unhappily any display of ill-feeling should obtrude itself among any of the guests, the chairman should promptly interfere, and courteously appeal to the better feelings of the contending parties. In short, the combined happiness and comfort of a certain body of persons are, to a great extent, placed under the control of the chairman, and it is to him that the successful or unsuccessful issue of the dinner is mainly attributable. When the last toast is arrived at, the chairman intimates the fact; and having returned thanks for his health being drunk, which follows as a matter of course, he is at liberty to vacate the chair, and thereby dissolves the formal character of the festivities.

1189. Etiquette of Wine Taking.—It is customary at dinner parties and other repasts among the higher classes, for the assembled guests to take wine with each other. This ceremony is performed when the more weighty business of the meal has passed, and the appetite is appeased. The following rules are generally observed in connection with this custom. When you are about to take wine with a person, you select a favorable moment, and say to the person, "Mr. So-and-so, I should be happy to take wine with you;" the person thus addressed replies, "With pleasure." The challenger and the challenged then fill their glasses, raise them at the same moment, and bow towards each other in silence. When you wish to take wine with a lady, you say, "Mrs. or Miss So-and-so, will you permit me the honor of taking wine with you?" and having received an acquiescent reply, you ask the lady what wine she would prefer; on receiving her answer, you call upon the gentleman sitting next to her to see that her glass is replenished with the wine named. Among relatives and friends, it is customary for mutual acquaintances to request permission to "join in," and in such cases each waits until all the glasses

are filled, and the guests bow to one another in due order. In practising this custom, certain laws are laid down, which it would be considered very vulgar to break. For instance, a senior in age, or a superior in rank, always claims the initiative. The same person should not be asked to take wine twice. Some discretion should also be observed in challenging, the calls being neither too frequent nor numerous. No person should be urged to take wine, and a request to be allowed to *fill* with water, should not be considered either disrespectful or impolite. Every time that a person is challenged he should replenish his glass, although it may be at the time nearly full. It is not etiquette to drink the whole of the contents of the glass, nor indeed to take a full draught, the merest sip being deemed a sufficient recognition of the compliment. In this ceremony, the timing of the raising of the glass, the catching of the eye, the bow, and the expression that accompanies it, are matters which, though trifling in themselves, are nevertheless worth studying, to avoid the appearance of awkwardness and uncouth behavior.

1190. Fashionable vs. Polite Society.—Politeness is the same in every country and in every age; it is as immutable as truth, honor, virtue or goodness. It is that elegance, urbanity, and propriety of manners, by which an individual renders himself always agreeable. Fashion is arbitrary custom made prevailing style. Nothing is more fickle, uncertain, or, possibly more absurd. Its standard is unknown, invisible. It does everything by caprice; and by this mysterious talisman, its manners, its dress, its language, and the whole of its behavior is tried. It is singular enough that this standard which is to fix everything, is, of all things, the most variable. Polite society is accomplished, polished—this is the meaning of the word. It is a temple of taste, built upon the solid foundations of culture. Fashionable society is a superstructure of vanity, built upon the sand-banks of caprice and exaggeration. The gaudy, demonstrative, dashy and pretentious manners of fashionable society are in the widest possible contrast with the dignified, cordial, graceful, and modest bearing of truly polite circles. There is a great gulf between the two. It is not a real life that people of fashion live, it is a body of deformity and fatigue, covered up with shining tinsel and lace; and the lady and gentleman of the best grade of society as indignantly reject the title of "fashionable," as a substantial old-styled gentleman would that of "fop."—*Journal of Fine Arts.*

1191. Social Parties.—Parties, when properly managed, are not only productive of immediate enjoyment, but serve to bind still closer the ties of friendship and good-will. They are also of incalculable advantage to young persons of both sexes, not only in habituating them to the proper tone of society, but in affording them opportunities for forming friendships and matrimonial alliances.

1192. Evening Parties.—Parties are frequently given without any definite occasion, and with no set kind of entertainment; the *réunions* termed evening parties are of this nature. The refreshments furnished may consist of tea, coffee, lemonade and other effervescing beverages, fruit, cake, sandwiches, etc. There is no occasion for a sit-down meal, the refreshments being handed round by the servants, or by the male guests. The amusements may comprise singing, dancing, acting charades, and any other pastime which the ingenuity of the host and hostess can invent. The principle is, that the assembled guests are met together for the purpose of enjoying themselves, and administering to the enjoyment of others in any rational manner. At such times, therefore, as the mirth begins to flag, and conversation ceases, it is not out of place for any one to take

the initiative in any pastime that is calculated to be generally acceptable. At the same time, the person giving the party should take care that the materials for amusement are ready at hand; and should, indeed, have mentally planned a programme of the evening's amusements, in order to prevent anything like dulness or inanity taking possession of the guests. Thus the givers of the entertainment will not fail to invite persons who can play and sing, and especially secure the services of one of those persons who by his accomplishments and sociable disposition is able to take the lead in every kind of pastime, and to come to the rescue whenever an awkward pause occurs. It is considered etiquette to appear at an evening party in full dress, unless under special circumstances, when a person must be guided by his taste and discernment. The cost attending an evening party is much less, and the pleasure far greater, than that incident to any other entertainment.

1193. Artificial Manners.—Artificial manners, and such as spring from good taste and refinement, can never be mistaken, and differ as widely as gold and tinsel. How captivating is gentleness of manner derived from true humility, and how faint is every imitation? The one resembles a glorious rainbow, spanning a dark cloud—the other, its pale attendant, the water-gall. That suavity of manner which renders a real gentlewoman courteous to all, and careful to avoid giving offence, is often copied by those who merely subject themselves to certain rules of etiquette; but very awkward is the copy. Warm professions of regard are bestowed on those who do not expect them, and the esteem which is due to merit appears to be lavished on every one alike. True humility, blended with a right appreciation of self-respect, gives a pleasing cast to the countenance, so from a sincere and open disposition springs that artlessness of manner which disarms all prejudice. Feeling, on the contrary, is ridiculous when affected, and, even when real, should not be too openly manifested. Let the manners arise from the mind, and let there be no disguise for the genuine emotions of the heart.

1194. Master of Ceremonies.—A person appointed to arrange the dances at balls, and to attend to the general conduct of the ball-room. He is the person with whom all complaints are lodged, and to whom the wishes of the dancers individually and collectively are made known. The master of the ceremonies is delegated with a certain amount of authority for the time being, which it is agreed on all hands to respect. He is supposed to preside over the comfort and happiness of the assembly generally, and it is a mark of ill-nature and questionable taste, for any individual to obstruct and molest him in the performance of his duties. The qualifications for a master of the ceremonies are, a perfect knowledge of dancing, a correct ear for music, a quick eye, energetic will, and unfailing urbanity and good temper. He must also be intimately acquainted with all the amenities and observances of social life. Finally, he should be somewhat above the middle height, of a light figure, neatly and appropriately dressed, and a gentleman in appearance, language, and manners.

1195. Live for Something.—Thousands of men breathe, move, and live—pass off the stage of life, and are heard of no more. Why? None were blessed by them; none could point to them as the means of their redemption; not a line they wrote, not a word they spoke could be recalled, and so they perished. Their light went out in darkness, and they were not remembered more than the insects of yesterday. Will you thus live and die, O man immortal! Live for something. Do good, and leave behind you a monument of virtue, that the storms of time can never destroy.

Write your name, by kindness, love, and mercy, on the hearts of thousands who come in contact with you year by year, and you will never be forgotten. No; your name, your deeds, will be as legible on the hearts you leave behind, as the stars on the brow of evening. Good deeds will shine as brightly on the earth as the stars of heaven.

1196. Bible — From Biblia, a Greek word meaning *books*—is the name which was given by Chrysostom, in the fifth century, to the collection of sixty-six writings, which are recognized by Christians as divine. Before the adoption of this name, they were known as "The Scripture," "The Scriptures," and "The Sacred Letters," The Bible consists of two parts, the Old and the New Testaments. The former was written in Hebrew, with the exception of the books of Ezra, Nehemiah, and Daniel, which were in Chaldaic; the latter in Greek. The Old Testament was translated into Greek, at Alexandria, B. C., 277; this version was called the *Septuagint*, because it was said to be the work of seventy translators. The Latin version of the Scriptures known as the *Vulgate*, was made by St. Jerome, between the years 382 and 405 of our era. This version is remarkable as being the first book ever printed; the earliest printed editions are without date, the earliest dated editions bear that of 1462. The whole Bible was rendered into the Saxon tongue about the year A. D. 940. The "Douay Bible," and "Rhemish Testament," are so called, because the former was first published at Douay, in Belgium, A. D. 1609, and the latter at Rheims, A. D. 1582; these are the only versions used by the Catholic laity. What is known as the "authorized" version of the Scriptures, is so called, from the fact that it was translated from the original tongues, and appointed to be read in churches, by command of King James I., of England, A. D. 1611. Forty-seven persons were engaged upon it. They met in companies at different places, having their respective tasks assigned them. The whole was revised by twelve men together, two having been chosen from each company. The Old Testament consists of thirty-nine books termed "canonical," (from the Greek Kanon, meaning *straight* or a *straight rule*), and fourteen "apocryphal." The term Apocrypha signifies *hidden* or *concealed*, and is applied to these books, because their origin is regarded as obscure, and their authenticity doubtful. The New Testament contains twenty-seven books, viz.: five historical, twenty-one hortatory, and one of a mixed hortatory and prophetical character. The division into chapters assumed its present form about the middle of the thirteenth century.

1197. Funerals.—It is usual, when a death takes place, to communicate the event immediately, upon mourning note paper, to every principal member of the family, and to request them to communicate the same to the more remote relatives in their circle. If possible, the day and hour at which the funeral is to take place, should be given. In public notices of funerals, it would be well to give the hour at which the services are to commence, and also the time at which the cortége will start. In all cases, the appointments made should be punctually kept. In going to a funeral, the nearest relatives of the deceased occupy the carriages nearest the hearse. The same order prevails in returning. Only the relatives and most intimate friends of the family should return to the house after the funeral, and their stay should be as short as possible. It is considered a mark of respect for friends to become pall-bearers. In the funerals of young persons, the pall should be borne by their companions, wearing white gloves and love-ribbon. Visits of condolence should be paid by friends within a week or fortnight after the funeral. Acquaintances should make inquiries and leave cards. All correspondence between members of

the family should be upon black-edged paper.

1198. FUNERAL CHARGES.—The charges for funerals are almost the last thing a person thinks about, because he has no occasion to do so until the unhappy necessity arrives, and then he is generally at a loss how to give orders for the funeral, so that it may be performed with becoming decency, and yet with economy. In such cases it would be as well to prevail upon some friend to make the necessary arrangements with a respectable undertaker, having at the same time a perfect understanding as to what is to be furnished, and the amount that is to be paid. Some undertakers take advantage of the recent grief of a bereaved person to import extravagant items into the funeral ceremony, and to charge a most exorbitant sum for them. Others have "fixed charges," as they are called, but liable to a further addition for extras; and in many cases, where, for instance, a person has died poor, and left a large family, these cruel exactions fall upon a person just at the season that they are least able to be borne. In some of our large cities companies have been started for the burial of the dead, which undertake all the expenses of a funeral, at charges varying from twenty to one hundred dollars.

1199. Bleaching. — The best method of bleaching or restoring whiteness to discolored *linen* is to let it lie on the grass, day and night, so long as is necessary, exposed to the dews and winds. There may occur cases, however, when this will be difficult to accomplish, and where a quicker process may be desirable. In this case Javelle water may be used.

1200. JAVELLE WATER. — Many persons keep on hand a supply of Javelle water, a small quantity of which is sufficient to render most soiled linens perfectly white. Old engravings, woodcuts and all kind of printed matter that have turned yellow are completely restored by being immersed in it for only one minute, without the least injury to the paper, if the precaution is taken to thoroughly wash the article in water containing a little hyposulphite of soda (antichlor.). For the preparation of Javelle water take four pounds of bicarbonate of soda, one pound of chloride of lime, put the soda into a kettle over the fire, add one gallon of boiling water, let it boil from ten to fifteen minutes, then stir in the chloride of lime, avoiding lumps. When cold the liquid can be kept in a jug ready for use.

1201. WASHING AND BLEACHING LINEN. — A substitute for washing soda, and bleaching powder, is the hyposulphite of soda. It saves soap and bleaches at the same time; and does not injure the cloth in the least.

1202. Kalsomining Walls.— In case the wall of a large room, say sixteen by twenty feet square, is to be kalsomined with two coats, it will require about one fourth of a pound of light colored glue, and five or six pounds of Paris white. Soak the glue over night in a tin vessel containing about a quart of warm water. If the kalsomine is to be applied the next day, add a pint more of clean water to the glue, and set the tin vessel containing the glue into a kettle of boiling water over the fire, and continue to stir the glue until it is well dissolved, and quite thin. If the glue pail be placed in a kettle of boiling water, the glue will not be scorched. Then, after putting the Paris white into a large water pail, pour on hot water, and stir it until the liquid appears like thick milk. Now mingle the glue-liquid with the whiting, stir it thoroughly, and apply it to the wall with a whitewash brush or with a large paint brush.

1203. Whitewash.—Take half a bushel of nice unslacked lime, slack it with boiling water, cover it during the process to keep in the steam. Strain the liquid through a fine sieve or strainer, and add to it a peek of salt, previously well dissolved in warm

water; three pounds of ground rice, boiled to a thin paste, and stirred in boiling hot; half a pound of powdered Spanish whiting, and a pound of clean glue, which has been previously dissolved by soaking it well, and then hanging it over a slow fire, in a small kettle within a large one filled with water. Add five gallons of hot water to the mixture, stir it well, and let it stand a few days covered from the dirt. It should be put on right hot; for this purpose it can be kept in a kettle on a portable furnace. It is said that about a pint of this mixture will cover a square yard upon the outside of a house if properly applied. Brushes more or less small may be used according to the neatness of the job required. It answers as well as oil paint for wood, brick or stone, and is cheaper. It retains its brilliancy for many years. There is nothing of the kind that will compare with it, either for inside or outside walls. Coloring matter may be put in to make it any shade you like.

1204. To Copy Engravings.—Mix ten grains of bichromate of potash, and twenty grains of sulphate of copper in one ounce of distilled water. Spread this mixture over common writing-paper, and let it dry; then place the engraving, face downwards, on the prepared side of the paper, cover them with a piece of plate glass, and expose to the sunshine. In about half an hour, a faint copy is produced in yellow. This must be washed over with a solution of nitrate of silver, twenty grains, to an ounce of distilled water; and when washed over, a beautiful red picture makes its appearance. Fix by washing in pure water. If it be desired to change the color of the picture, soak it in salt and water till it disappears; then hold it in the sun for five minutes, and the same picture again appears in a fine lilac color.

1205. Bronzing Plaster Figures.—With a solution in water of palm-oil soap mix a solution of sulphate of iron and sulphate of copper; this furnishes a brownish green precipitate, the color of which may be modified at pleasure by the addition of a greater or less quantity of one or the other of these salts. The precipitate, after being washed and dried, is re-dissolved in a mixture of good varnish of linseed oil, and wax; and with this solution the figures (having been previously heated) are coated; on becoming dry they will be found to be perfectly bronzed.

1206. Blankets.—To be durable blankets must have a certain weight, a closeness of fabric, and sufficient quantity of wool in them. It is necessary, therefore, in choosing blankets, to look not merely at the rich appearance of the pile, but also the weight and texture. If not in constant use they are liable to be moth-eaten. To prevent this they should be folded and laid under feather beds that are in use, and occasionally taken out in the air and shaken. When soiled they should be washed, not scoured, and well dried before they are laid by. Blankets well chosen in the first instance and kept with ordinary care afterwards, will last a lifetime.

1207. Air is composed of oxygen, nitrogen, and carbonic acid gases, in the proportion of oxygen 20 volumes, nitrogen 79 volumes, and carbonic acid gas one volume. The air when once breathed parts with one-sixth part of its oxygen; were it therefore to be breathed six times successively it would be deprived of all its oxygen; the consequence of which would be that the blood would be divested of its vitality, the organs have their action suspended, and death would ensue. Nothing more rapidly or completely vitiates the air, than the human body; which, from the *lungs*, and from the *seven million of pores* diffused over the skin, is incessantly pouring out a deadly poison, carbonic acid gas. The want of a good supply of pure air is certain to be followed by lassitude,

languor, and irritability; the nervous system becomes affected, the intellectual faculties weakened, and if the cause is not removed, disease will sooner or later follow.

The quality of air is greatly influenced by local causes; sea air is well known to be beneficial and invigorating, which is attributable to its constant agitation by the winds and tides, and also to the absence of many deteriorating causes to which land is subject, such as the respiration of animals and the putrefaction of animal and vegetable substances. Lofty and exposed aspects have a bracing effect upon the system, while low situations, if on a dry soil, are more congenial to less hardy constitutions. In many instances, however, the surrounding air may be rendered pure or impure by circumstances over which we have immediate control. If, for instance, we suffer filth and refuse to accumulate near our dwellings, a vitiated atmosphere will be the inevitable consequence of the exhalations arising from these nuisances; or if an impure state of the air exist without any such aggravating causes, the remedy is within our power by the appliance of such means as art and science have placed within our reach.

1208. Light.—Light is as necessary to health as air, yet it is a forbidden luxury in many homes. Heavy Venetian blinds jealously protect the delicate hues of the curtains and carpets from its influence, and the inmates consequently fade, instead of the upholstery; for a human being can no more do without light than can a flower, and we only need place this latter in a cellar for a few days, and we shall see how it will look. It must not, however, be supposed that we would recklessly suffer the noonday sun to shine on our damask curtains or tapestry carpets, or that we should open our windows when rain, hail, or snow beat full upon them; all we wish to do is to advise such a use of God's choicest gifts as health requires, and common sense dictates. Sir James Wylie has given a remarkable instance of the influence of light. He states that the cases of disease, on the dark side of a barrack at St. Petersburg, have been uniformly, for many years, in the proportion of three to one to those on the side exposed to strong light. The experiments of Dr. Edwards are conclusive. He has shown that if tadpoles are nourished with proper food, and exposed to the constantly renewed contact of water (so that their beneficial respiration may be maintained), but are entirely deprived of light, their growth continues, but their metamorphosis into the condition of air-breathing animals is arrested, and they remain in the form of large tadpoles.

1209. Ventilation. — Ventilation as applied to the rooms we ordinarily inhabit is a most important consideration in connection with our health and comfort. When the breath of the human body issues from the chest, being heated to nearly the temperature of the body, it is dilated, and consequently rendered specifically lighter than the surrounding atmosphere: hence it instantly ascends, as wood from the bottom of water, and, before the next inspiration, it is removed out of the way, giving place to purer air. But this natural ventilation, as it may be called, is complete only while we are in the open air: when we are shut up in an apartment, the vitiated air rises, but it is stopped at the ceiling, and preserves its lofty situation only so long as its elevated temperature remains; when it has gradually given out its surplus heat to the walls of the room, it becomes of the same density as the rest of the air, mingles with it, and thus descends to our level, where we are liable to inhale a part of it again, together with a purer portion. From this it is evident that the upper part of a room, next the ceiling, is the place where, in general, the worst air is collected, and of course that is the place for letting it out; but

it must be recollected that no air can make its escape from a room, except an equal quantity enter to supply its place; and it follows that there should be a provision made for the entrance of fresh air, as also for the egress of the foul atmosphere.

Where a fire is burning in the chimney of an apartment, a certain degree of ventilation is going on constantly, and must go on of itself, without the thought or attention of any person; and this shows the advantage of open chimney fire-places. It is obvious that the current of air, necessary to feed the fire, produces a continual change of all that part of the air which is below the level of the mantelpiece; but this cannot happen without a partial change at least of what is above that level. If the vitiated air be not removed with sufficient rapidity, by the draught of the chimney alone, then some other mode will be necessary in addition. The better class of houses are now constructed with the rooms lofty, and the sashes of the windows made to open at top and at bottom; and ventilation thus becomes comparatively easy. The warm vitiated air, ascending to the ceiling, finds there sufficient space above our heads, till it cools, and mixes gradually with the rest, as before stated; and if we desire to change the air more completely, we have only to pull down a small part of the upper sash, that the hot air near the ceiling may escape. But this escape of foul air will not always take place while a fire is burning, except certain circumstances be attended to. Should the aperture made by pulling down the top sash be greater than the area of the crevices in the apartments from which the fire was supplied, some cold air will come in by the window, to supply the fire, instead of hot air going out, and the effect of this will be unpleasant. To cause the vitiated air to pass off as it ascends is the great object in view, and this result may be secured by a contrivance known as the "trap ventilator."

1210. Trap Ventilator.—To construct this ventilator, make a hole in the chimney a few inches below the ceiling. For a room of twelve or fourteen feet square a hole of six inches diameter will be sufficient. Suppose the thickness of the wall to be twelve inches, widen out the side nearest the room to a diameter of twelve inches outside, sloping it funnel-shaped, so that half of the thickness of the chimney breast, or six inches, shall be left of the diameter of the original hole, or six inches. Make a zinc funnel to fit this funnel-shaped hole in the wall, and fasten it therein with good cement. At the large end in the aperture, fix a lid or cover, hinged on one side, and fastened on the opposite side by a small knob. The whole of this lid must not be solid, but a centrepiece, of a diameter larger than the small hole only: suppose the hole in the wall nearest the chimney to be six inches, the solid centre-piece of the cover should be six and a half inches diameter, and care should be taken to have this centre-piece exactly opposite the hole. Round the solid centrepiece pierce a number of small holes, or make this part of perforated zinc. This fitted up, the action is as follows:—The bad air from the room passes in through the small apertures in the cover, and by the upward current in the chimney is pulled along the tube and delivered up the flue.

1211. Pomades.—In the preparation of pomades, one of the first objects of consideration is to obtain their fatty basis in as fresh and pure a state as possible. Lard, beef and mutton suet, beef marrow, veal fat, and bear's fat, are the substances commonly employed for this purpose, either singly, or in mixtures of two or more of them. The fat, after being separated from extraneous skin and fibre, is pounded in a marble mortar, in the cold, until all the membranes are completely torn asunder. It is next placed in a covered porcelain or polished metal pan, and submitted to the heat of a water

bath, which is continued until its fatty portion has liquefied, and the albuminous and aqueous matter, and other foreign substances have completely separated and subsided. The liquid fat is then carefully skimmed, and at once passed through a clean flannel filter. In this state it is perfumed as desired; after which, when it is intended that the pomade should be opaque and white, it is assiduously stirred or beaten with a glass or wooden knife, or spatula, until it concretes; but when it is desired that it should appear transparent or crystalline, it is allowed to cool very slowly; and without being disturbed. To prevent the accession of rancidity, a little benzoic acid, gum benzoin, or nitric ether, may be added to the fat, whilst in the liquid state. The following recipes are given for various kinds of pomades.

1212. PLAIN POMADE.—Lard, two pounds; beef suet, one pound; these to be carefully rendered as directed above, using the least possible degree of heat that will melt them; then add, essence of bergamot, one ounce, and stir the mixture until it concretes.

1213. CRYSTALLIZED POMADE.—Castor oil, one pound; spermaceti, three ounces; melt them together by a gentle heat; add of essence of bergamot, three drachms; oils of verbena, lavender, and rosemary, of each half a drachm; pour it into widemouthed glass bottles, and allow it to cool very slowly and undisturbed.

1214. CREAM POMADE.—Take of spermaceti, two ounces and a half; white wax, one ounce; oil of sweet almonds, ten ounces. Melt these over a water bath, and pour into a mortar; triturate and beat it until a white cream, free from grains, is obtained, adding by degrees, two ounces of rose water. Towards the end of the operation, perfume with oil of rose, six drops; tincture of benzoin, five drops; tincture of ambergris, two drops. Then beat again, the more it is beaten the whiter and better it will be.

1215. WHITE STICK POMADE.—Stick pomade is used for the whiskers and moustache, and is made as follows: Suet, two ounces; white wax or paraffine, one ounce; oil of bergamot, half a drachm. Melt the suet over a water bath, then add the bergamot, and pour into moulds of any shape desired. Brown and black sticks are made in the same way, but colored with lampblack or umber, ground in oil.

1216. CASTOR OIL POMADE.—Castor oil, four ounces; prepared lard, two ounces; white wax, two drachms; bergamot, two drachms; oil of lavender, twenty drops. Melt the fat with the oil, and on cooling add the scents, and stir till cold.

1217. Rose Hair Oil.—This is made by mixing equal parts of castor oil and alcohol, and adding a few drops of red aniline, to give it the tint desired. Oil of bergamot, may be used to perfume it. If this mixture should prove too oily, equal parts of castor oil, alcohol, and bay rum, may be used.

1218. Gylcerine Balsam.—This is designed to whiten and soften the skin. Take white wax, one ounce; spermaceti, two ounces; oil of almonds, nine ounces. Melt together by a moderate heat, in a glazed earthenware vessel; and add glycerine, three ounces, ottar of rose, twelve drops.

1219. Cold Cream.—A soft, cooling, and grateful unguent, which forms a very agreeable application for chapped hands, sore lips, or to rub over the face when irritated by cutting winds or by the action of the sun. Much of the cold cream made in the shops is only hogs' lard washed and scented with ottar of roses. The proper mode of preparing it is to melt $1\frac{1}{2}$ ounces of white wax and 6 drachms of spermaceti with 8 ounces of almond oil; strain through muslin, and pour it into a couple of quarts of warm rose water in a wash-hand-basin or some large open milk-pan or crock. The liquid oil and wax is then to be slowly beaten with a few slips of cane or

clean switches, diffusing it freely among the water, and so continued till the rose water becomes cold, and the cold cream, like drifted snow, congeals of a beautiful white on the sides of the vessel. The more it is beaten the whiter becomes the product, and the more of the perfume of the rose water will be absorbed: care, however, must be taken not to scatter the liquid oil beyond the sides of the vessel. The rose water can always be extemporized by adding ten drops of ottar of roses dissolved in two drachms of spirits of wine, and adding it to the two quarts of warm water, and then hastily stirring all together, before pouring in the oil, wax, and spermaceti.

1220. Rose Lip-Salve.—Take of almond oil, a quarter of a pound; spermaceti and white wax, of each, one ounce; set a mortar in a vessel containing boiling water, and put the wax, cut into small pieces, into it. When the wax has melted, take out the mortar, and add the oil by degrees, beating with the pestle until nearly cold; then add a few drops of red aniline, to give it the desired color, and perfume with ottar of roses, twenty drops.

1221. To Curl the Hair.—Take two ounces of borax, one drachm of powdered gum senegal, one quart of hot water (not boiling), mix, and as soon as the ingredients are dissolved, add two ounces of spirits of wine, strongly impregnated with camphor. On retiring for the night, wet the hair with the above mixture and roll it in paper, or on pins, as usual.

1222. Freckle Lotions.—Freckles are yellow colored spots similar to stains, developed on the skin. There are two varieties: summer freckles, resulting from the action of the sun and heat, during the summer season, and disappearing at the termination of the hot weather; and cold freckles, which will appear at all times of the year. The latter form commonly arises from disordered health or some general disturbance of the system, to which attention should be chiefly directed. The summer freckles may be removed by the application of any of the lotions following:

i. Bichloride of mercury, 5 grains; hydrochloric acid, 30 drops; lump sugar, 1 oz.; rectified spirit of wine, 2 oz.; rose water, 7 oz.; agitate together, until the whole is dissolved. This is a poisonous compound, and it should be so marked.

ii. Take of muriate of ammonia, one drachm; rain water, seven ounces; cologne water, half an ounce. This may be used freely.

iii. It is said that powdered nitre, moistened with water, and applied night and morning, will soon remove all traces of them.

1223. Eau de Cologne.—This favorite perfume may be compounded in a variety of ways; the following are some of the most approved:—

i. Oil of neroli, citron, bergamot, orange, and rosemary, 12 drops each; cardamom seeds, 1 drachm; spirits of wine, 1 pint; infuse for a week.

ii. Rectified spirits of wine, 4 pints; oil of bergamot, 1 oz.; oil of lemon, $\frac{1}{2}$ oz.; oil of rosemary, $\frac{1}{2}$ drachm; oil of neroli, $\frac{3}{4}$ drachm; oil of English lavender, 1 drachm; oil of oranges, 1 drachm; mix well and filter.

iii. Essence of citron, 2 drachms; essence of bergamot, 2 drachms; essence of cedrat, 1 drachm; essence of lavender, $\frac{1}{2}$ drachm; essence of orange-flowers, 10 drops; tincture of musk, $\frac{1}{2}$ drachm; tincture of benjamin, 3 drachms; ottar of roses, 10 drops; proof spirit, 2 pints. Mix and filter.

iv. (*Farina's.*) Infuse in a quart of spirits of wine a piece of benzoin about the size of a filbert, and $1\frac{1}{2}$ drachm of cardamom seed; when these have stood forty-eight hours, add half an ounce of animal charcoal, shaking the bottle well, and when it has stood for an hour filter it through blotting paper; when filtered add a drachm and a half of bergamot, half a drachm of oil of rosemary, two drachms of essence of lemon, half a drachm of oil

of lavender, fifteen drops of neroli, and two drops of oil of eloves; shake these together, and filter again.

1224. Sachet Powders.—The French perfumers combine a number of substances which, being put up in silk bags, or ornamental envelopes, find a ready sale; as it is an economical means of imparting an agreeable odor to linen and clothes, as they lie in drawers. The ingredients are to be ground, or powdered in a mortar, and afterwards sifted.

1225. ACACIA SACHET.—Take of cassia buds, one pound; rose leaves, one pound; orris root in fine powder, two pounds; oil of almonds, twenty drops; grain musk, one drachm. Mix the ingredients thoroughly, and keep in a well stoppered bottle.

1226. LAVENDER SACHET.—Lavender flowers, ground fine, one pound; gum benzoin in powder, a quarter of a pound; otto of lavender, two drachms.

1227. HELIOTROPE SACHET.—Powdered orris root, one pound; rose leaves, ground, half a pound; tonquin beans, ground, a quarter of a pound; vanilla beans, powdered, one ounce; grain musk, one drachm; otto of almonds, five drops. This is said to be one of the best sachets made, and a person unacquainted with its composition would not, for an instant, believe it to be any other than genuine heliotrope.

1228. Violet Powder.—As a lady's toilet-table is incomplete without a box of absorbent powder, we give the following as one of the best. Take of pure wheat starch sixteen ounces; orris-root, powdered, three ounces; otto of lemon, twenty drops; otto of bergamot, ten drops. Mix thoroughly, and keep in a closely covered box.

1229. Glycerine.—This article, which modern chemistry has discovered, is the base or proximate principle of all oil, grease, and fat. All fats and oils, it has been demonstrated by modern chemistry, consist of two principles, *oleine* and *stearine*; these in their turn are composed of an acid, called *stearic*, or *oleic acid*, combined with an oxide of *lipyle;* in other words, glycerine is obtained from the soapboiler, and is yielded from his melted tallow and oil, at the moment he adds the alkali or potass to his liquid fat, the alkali uniting with the stearic acid, or the oleic acid, whichever may be the preponderating acid present, forming the saponaceous mass that is afterwards to become the hard bar of soap; and the glycerine, set free, floats about the mixture. Glycerine is a clear, transparent liquid, like thin oil, with a faint, luscious smell, and a bland, intensely sweet taste.

1230. Skeleton Leaves may be made by steeping leaves in rain water, in an open vessel exposed to the air and sun. Water must occasionally be added to compensate loss by evaporation. The leaves will putrefy, and then their membranes will begin to open; then lay them on a clean white plate, filled with fresh water, and with gentle touches take off the external membranes, separating them cautiously near the middle rib. When there is an opening towards the latter the whole membrane separates easily. The process requires a great deal of patience, as ample time must be given for the vegetable tissues to decay and separate.

A more expeditious method is to take a tablespoonful of chloride of lime in a liquid state, mixed with a quart of pure spring water. Leaves or seed-vessels of plants to be soaked in the mixture for about four hours, then taken out and well washed in a large basin filled with water, after which they should be left to dry, with free exposure to light and air. Some of the larger species of forest leaves, or such as have strong ribs, will require to be left rather more than four hours in the liquid.

1231. Mothers.—Each mother is a historian. She writes not the history of empires or of nations, upon paper, but writes her own history on the im-

perishable mind of her child. The tablet, and that history will remain indelible when time shall be no more. That history each mother shall meet again, and read again, with eternal joy or unutterable grief, in the coming ages of eternity. This thought should weigh upon the mind of every mother, and render her deeply circumspect and prayerful and faithful, in her solemn work of training up her children for heaven and immortality.

The minds of children are very susceptible, and easily impressed. A word, a look, a frown, may engrave an impression on the mind of a child which no lapse of time can efface or wash out. You walk along the seashore when the tide is out, and you form characters, or write words, or names, in the white, smooth sand, which is spread out so clear and beautiful at your feet, according as your fancy may dictate; but the returning tide shall, in a few hours, wash out and efface all you have written.

Not so the lines and characters of truth and error which your conduct imprints on the mind of your child. There you write impressions, the everlasting good or ill of your child, which neither floods nor the storms of earth can wash out, nor death's cold fingers erase, nor the slow-moving ages of eternity obliterate. How careful, then, should each mother be in the treatment of her child! How prayerful, and how serious and how earnest, to write the eternal truths of God on his mind—those truths which shall be his guide and teacher when her voice shall be silent in death.

1232. Discipline of Children.—It is a duty which parents owe to themselves, to their offspring, and to society at large, to train and educate their children on such principles as will best conduce to their well-being and well-doing hereafter. The best means for effecting this is a system of firmness blended with kindness, and a course of conduct invariably truthful and consistent. Nothing can be more impolitic and improper than the irregular and capricious manner in which many parents rule their children: as for instance, allowing them to commit some glaring error without a word of reproof, and chastising them severely for some trifling fault, which might have been dismissed with a few words of deprecation and caution; or indulging in jokes and pleasantry one minute, and then suddenly, without any perceptible cause, assuming a stern and forbidding demeanor the next. It almost amounts to a certainty that all children who dishonor their parents will be disreputable members of society; and it is equally true that the crimes committed by men and women may, in a great measure, be traced to the neglect and mismanagement they have experienced as children; on the other hand, a child who loves his parents is, generally speaking, blameless and upright in every other relation of life. But a child's love for its parents must be founded on respect, and respect must be founded on an appreciation of those qualities which every parent ought to display, and which every child knows how to estimate.

Those who live much among children should carefully purify their every thought, word, and action,—for the ductile and impressionable nature of a child, chameleon-like, takes its hue from that of the characters which surround it. We would censure any one who mispronounced words before children, or taught them to call things or animals by ridiculous names; and we would doubly censure any one who instilled fear into the hearts of young children by threats of "bogies," "black men," and such like nursery monsters. Many a grown man and woman has found it difficult to overcome the dislike to darkness implanted in them when quite children by some nursery bug-bears. Teach a child rather to believe that angels watch over it, induce it to be good from a fear of grieving ts parents, but never destroy or

sully that sweet confidence which is the most blessed part of childhood. Never tell a child a falsehood either; if you promise a thing, do it; if you say a thing, act up to it. Empty threats and vain promises made to quiet a child, teach it afterwards, in its turn, to disregard truth, and make it distrust those whom, next to God, it should love and honor; whereas "example is a constant monitor." Lastly, but not least in importance, parents should never show any difference of opinion in their treatment of children. Nothing can be more pernicious to their moral culture, engendering in them habits of disobedience; for they cannot obey one parent without disobeying the other. We earnestly recommend attention to this observance, for, besides the evil of disobedience that is almost sure to follow a difference in opinion from those in authority over the child, the latter is sometimes prone to disregard the instructions and admonitions of both, and set up principles of his own more in accordance with his inclinations, however erroneous they may be.

1233. Maternal Management of Children.—The period of *childhood* is generally considered as beginning with the second year, and terminating with the eighth. The management of children has an all-important influence on the health and happiness of after years, for at this period the foundation is laid, either for irremediable debility, or for mental and bodily vigor. Consequently children require constant care, and indefatigable personal attention. The chief points in the physical and moral training of children are cleanliness, clothing, diet and regimen, air and exercise, sleep, education and amusements.

1234. CLEANLINESS.—It is of the utmost importance that the child's skin should be well and thoroughly cleansed: and this should be done by sponging the child from head to foot. If the weather be cold the water should be slightly tepid, and the room kept at a proper temperature. The head should be wetted first, and then the operation be thoroughly and quickly performed. After washing, the skin should be carefully and thoroughly dried, and finally well rubbed with a flannel or by the hands, and the surface should be warmed and stimulated by the assiduous gentle friction made use of. It is especially necessary to be careful to dry the armpits, groins etc., and if the child is very fat, it would be as well to dust over those parts with violet powder or starch, so as to prevent excoriation. It should then be dressed expeditiously, and suffered to run about.

1235. CLOTHING.—The clothing of children should afford due warmth, and yet be light, and so made as to occasion no unnatural constriction. Too little clothing is frequently productive of the most sudden attacks of acute disease; and in our variable climate, pneumonia, croup and other dangerous affections of the air-passages and lungs are frequently brought about. Nothing can be more cruel and absurd then dressing children in the seminude state, with the legs, chest, and shoulders bare, as seen so frequently. On the other hand, too much clothing is also a source of disease, sometimes even of the same diseases which originate in exposure to cold, and often renders the frame more susceptible to the impressions of cold, especially of cold air taken into the lungs. Regulate the clothing according to the season; resume the winter dress early; lay it aside late; for it is in spring and autumn that the vicissitudes of our climate are greatest, and congestive and inflammatory complaints most common. With regard to *material*, flannel should be worn next the skin during the day and put off at night. In summer, cotton may be substituted, and flannel resumed early in the autumn. If flannel should prove irritating to the skin, fine fleecy hosiery will in general be easily endured, and will greatly conduce to the preservation of

health. In every article of dress the principle should be carefully followed of placing no restraint upon the motions of any part. For the boy, tight-waisted trousers or braces, and for the girl, stays and corsets of all kinds must be forbidden during the whole period of childhood. All the muscles should have full liberty to act, as their free exercise promotes both their growth and activity, and thus ensures the regularity and efficiency of the several functions to which these muscles are subservient. Children should not wear garters or any other ligatures calculated to impede the circulation; and causing them to wear high heeled boots and shoes is not only a folly, but a crime.

1236. Diet and Regimen.—In the early part of childhood the diet of the latter months of infancy is still to be continued, *occasionally* varied by a dinner of mealy mashed potatoe and gravy, or a few crumbs of bread and gravy. Rice pudding or batter pudding may be given for a change. As the child grows older the quantity at each meal should be increased, and the quality somewhat altered. Pure milk, boiled or not, as it is found best to agree, may with bread form the morning and afternoon meals; and at dinner, meat and bread, with a small quantity of vegetable, and toast-and-water may be taken daily. One essential rule in connection with diet should be laid down, and that is, that a child should eat slowly and masticate thoroughly. The healthy state of the child depends greatly upon the observance of this rule, nor are the advantages temporary only; a salutary habit is established which will be of life-long benefit. The following articles of diet should never be given to a child: pork, cakes, new bread, sweetmeats, sauces, dried fruits, nuts, and butter in excess. Tea, especially when strong, is hurtful to children. Wine, spirits, or beer given to a healthy child is highly reprehensible, they ought never to be given but medicinally. Toast-and-water, or plain water, is the proper drink for children, and one that will cause them to relish their food with unalloyed zest.

1237. Air and Exercise.—*Pure* air is essential to the health and growth of children, but it is erroneous to suppose that the colder the temperature of the open air, the more bracing it will prove. It is the temperate quality, not the coldness, which renders it pure and salubrious. Much caution, indeed, is necessary on this head in our unsettled climate. When children are taken out in the air, mothers should have those to whom they intrust their children under their immediate superintendence. Nursery-maids are notoriously careless and indiscreet, in keeping children too long in the air at a time, or in standing still or sitting down with them in a current of air. When children are out, they should be encouraged to play and run about, and to amuse themselves with any exercise calculated to promote the development and growth of the body. When the weather is wet and damp, or cold biting winds prevail, let the child run about a large room, or the hall. On no account suffer him to *sit* for any length of time, as it will induce an enervated and relaxed state of the frame, beyond the reach of remedy. The air within doors should also be carefully attended to. The nursery in which children generally pass the first years of their life should be large, lofty, and thoroughly ventilated. It should have a sufficient number of windows, and also a chimney, to ensure free admission of light, and an uninterrupted circulation of air. Whenever the child is out of the nursery, the windows should be thrown wide open, and the temperature of the apartment generally should not exceed sixty degrees.

1238. Sleep.—From the second year up to the third and fourth, the child should be allowed to sleep for an hour or so before dinner; after this time it may be gradually discontinued.

The child should be put to rest every evening between seven and eight; the definite number of hours that a child ought to sleep cannot precisely be stated, but if it is in good health, it will sleep on undisturbed until the following morning, and awake of its own accord. Keeping children up beyond their usual hours is very injurious. At evening parties, for instance, children generally become pale, jaded, and peevish as the night draws on; and the following morning, instead of awaking cheerful and lively as is customary, they sleep two or three hours beyond their time, and are even then wearied and exhausted. The child's bed should consist of a mattress only, and the bed-clothes should not be so heavy as to cause perspiration. The bed should be open at the top and around, except where violent currents of air are to be guarded against. Children should not be allowed to sleep with persons in bad health, or who are far advanced in life.

1239. EDUCATION.—Children should only be confined two or three hours a day, and what little they learn should be taught as an amusement rather than as a task. To accomplish this it is better to instruct a child by encouraging habits of observation on things around and about him, than by books; and on this principle every walk in the field or garden, while conducing to health, may also furnish its lesson.

1240. AMUSEMENTS.—A child should be encouraged to engage in those amusements where the greatest number of muscles are brought into play, such as ball, hoop, skipping, running, etc. A child should never have toys given him that he can injure himself with, as toy-swords, knives, and bows and arrows; rocking-horses are also not wholly free from danger. (See *Nursery*—and *Nursery-Maid.*)

1241. Wet-Nurse.—In the selection of a wet nurse there is some difficulty, since there are not always mothers who have been bereaved of their babies, or one who has milk and strength sufficient for two infants. Many points are to be considered in making this choice. The age of the foster-parent should not exceed thirty years, nor should her milk be more than three months old. She should be in health, free from scorbutic or scrofulous taints, and from cutaneous scurf or eruptions, cleanly in her person, and extremely neat and orderly in her management of whatever concerns the infant. She must be sober and temperate, for persons addicted to the habitual use of stimulants and intoxicating drinks are not suitable for nurses; the diet should be wholesome, and neither scanty nor too full. The best evidence of freedom from taint of specific disease in the habit of a wet-nurse, will be furnished by her freedom from cutaneous eruptions, from sore throat and other mucous affections; having a cheerful and contented expression of countenance, a healthy-tinted skin, clear voice, sound teeth, sweet breath, and healthy functions. Her infant should be found to be plump, rounded, contented, with smooth skin, clean mouth, unobstructed nostrils, and dependent upon the food of the breast alone. Should there still remain any doubt as to the suitableness of the wet nurse, the testimony of a medical man as to the nutritive properties of the milk, and general fitness, should be solicited.

In addition to the physical qualifications of a wet nurse, her mental capacity and moral deportment should also be regarded. Her temper and disposition have much to do with the healthy nurture of the child, for it is well known that mental emotions are apt to affect the milk, and so act upon its properties as to render it pernicious to the child. Temperance in eating and drinking, is another important qualification; the latter especially, for when a nurse is addicted to an immoderate use of stimulants, the greatest injury is likely to be inflicted on the

suckling infant. The offices of a wet nurse should be made available only where a positive necessity exists; the suckling of a child is the natural office of the mother, and while it does not injure the parent is calculated to be of the greatest benefit to the infant. It should also be borne in mind, that the child will naturally place its affections where it receives its sustenance, and will love the nurse in preference to the mother; and although this may in time wear off, the estrangement while it lasts causes great pain to a mother's heart.

1242. Governess.—The person selected for this post should not be too young, or her authority will be in all probability disputed by the children placed in her charge. The accomplishments essential for the post will differ according to the social position of the family, and the peculiar views of the parents. Generally speaking, they comprise the rudiments of a plain education, and music, French, and drawing. In teaching children, however, much depends on the temper and disposition of the instructor. A person with moderate acquirements, and possessing a winning manner, will be able to impart a great deal more to her pupil, than a governess who, however highly accomplished, is stern and austere in her mode of teaching. It would be well, therefore, for a nursery governess first to secure the affection of her young charges, and then, by the same line of conduct, to guide them through their studies, as though it were a pastime rather than a task. Her temper will be frequently sorely tried, but she should remember that children are naturally wayward and capricious, and she should humor rather than vex them. The disobedience or the good conduct of a child may be regulated by a mere word or look. A certain measure of periodical arrangement can scarcely be introduced too early; even at the age of three, the infant may be initiated into a methodical distribution of time: thus, the breakfast, the morning walk, the mid-day sleep, the dinner, the evening ablutions, and, finally, the prayers, should each have their allotted hour, and that hour be observed with strict punctuality. In addition to the usual hours of instruction, the principle of imparting knowledge should be carried out in ordinary conversations. It may begin with the morning walk: and with very young children this is the best opportunity for conversational instruction. Every object may be made subservient to the purpose. In the country, the names and description of trees, flowers, or shrubs; the qualities and use of cattle, or agricultural implements, the occupation of field laborers, the nature of farming, the conversion of corn into bread, etc. In town, the use of shops, the nature of buying and selling, the variety of trades, the utility of carts, drays, and carriages of all kinds, with numerous other objects which are constantly meeting the eye.

1243. To Iron Velvet.—Having ripped the velvet apart, damp each piece separately, and holding it tightly in both hands, stretch it before the fire, the wrong side of the velvet being towards the fire. This will remove the creases, and give the surface of the material a fresh and new appearance. Velvet cannot be ironed on a table, for, when spread out on a hard substance, the iron will not go smoothly over the pile.

1244. To Raise the Pile of Velvet.—Cover a hot smoothing-iron with a wet cloth, and hold the velvet firmly over it; the vapor arising will raise the pile of the velvet with the assistance of a light whisk.

1245. To remove Ink Stains from Furniture.—Put a few drops of spirits of nitre into a teasponful of water, touch the stain with a feather dipped in the mixture, and on the ink disappearing, rub it over immediately with a rag wetted in cold water, or a white mark will be left, which will be difficult to efface.

1246. To take Writing Ink out of Paper.—Make a solution with muriate of tin, two drachms; water, four drachms; and apply it with a camel's hair brush. After the stain has disappeared, the paper should be passed through water, and dried.

Another way is to wash the written paper repeatedly with a concentrated solution of oxymuriatic acid, and afterwards wash it with lime-water, to neutralize any acid which may be left. The writing will be thus removed. If the writing is old, the preceding process will not be sufficiently efficacious, owing to the change which the ink has undergone. In such a case, the writing must be washed with sulphate of ammonia, before the oxymuriatic acid is applied. It may be then washed with a hair pencil.

1247. To render Faded writing Legible.—Put six bruised gall-nuts into a pint of white wine: set the vessel, containing these, in the sunshine for forty-eight hours. Dip a brush into the infusion, and pass it over the writing several times, until it appears sufficiently distinct to admit of being deciphered.

1248. Sympathetic Ink.—With a clean pen, write on paper with a solution of muriate of cobalt, so diluted with water, that the writing, when dry, will be invisible. On gently warming the paper, the writing will appear of a blue or greenish color, which will disappear again when cool. A solution of muriate of copper forms a yellow and sympathetic ink, and acetate of cobalt a rose or purple. If a landscape be drawn representing a winter scene, the paper being overlaid in the place where the foliage should be, with the green sympathetic ink, then on gently warming the drawing, it will represent summer. Sky and water may be drawn with the blue, and standing corn with the yellow ink.

1249. Blacking for Harness.—Melt two ounces of mutton-suet with six ounces of beeswax, add six ounces of sugar, two ounces of soft soap dissolved in water, and one ounce of indigo, finely powdered; when melted and well mixed, add a gill of turpentine; lay it on the harness with a sponge, and polish off with a brush.

1250. White Varnish.—The white varnish used for toys is made of sandarac, eight ounces; mastic, two ounces; Canada balsam, four ounces; alcohol, one quart. This is white and drying. Varnish for objects of the toilet table, such as work-boxes, card cases, etc., is made of gum sandarac, six ounces; elemi (genuine), four ounces; animi, one ounce; camphor, half an ounce; rectified spirit, one ounce. Melt slowly. These ingredients may, of course, be lessened in proportion.

1251. Gold Varnish.—Turmeric, one drachm; gamboge, one drachm; oil of turpentine, two pints; shellac, five ounces; dragon's blood, seven drachms; thin mastic varnish, eight ounces. Digest, with occasional agitation for fourteen days in a warm place, then set aside to fine, and pour off the clear liquor.

1252. Paste Blacking.—Take of ivory black, one pound; molasses, twelve ounces; sulphuric acid, one ounce; sweet oil, two ounces. Mix the black and molasses well, then add the oil, then the acid should be added by degrees, and if required, a little water may be used. The acid will not injure the leather, as it is neutralized by the bone-black.

1253. To Keep Iron from Rusting.—Kerosene applied by means of a moistened cloth to stoves will effectually keep them from rusting during the summer. It is also an excellent material to apply to all iron utensils used about the farm. Give plows, cultivators and the like a coating before they are put away in the fall.

1254. Liquid Glue.—An excellent liquid glue is made by dissolving glue in nitric ether. The ether will only dissolve a certain amount of the glue, consequently the solution cannot be made too thick.

1255. Marine Glue.—The best liquid glue that we have any knowledge of is made as follows:—Take gum of shellae three parts, caoutchoue (indiarubber) one part by weight; dissolve the caoutchoue and shellac in separate vessels, in ether free from alcohol, applying a gentle heat. When thoroughly dissolved mix the two solutions, and keep in a bottle tightly stoppered. This glue resists both hot and cold water.

1256. Furniture Polish.—To one pint of spirits of wine, add half an ounce of gum shellac, half an ounce of seed lac, and a quarter of an ounce of gum sandarae; submit the whole to a gentle heat, frequently shaking it, till the various gums are dissolved, when it is fit for use. Make a roller of list, put a little of the polish upon it, and cover that with a piece of soft linen rag, which must be lightly touched with cold drawn linseed oil. Rub the wood in a circular direction, not covering too large a space at a time, till the pores of the wood are sufficiently filled up. After this, rub in the same manner spirits of wine, with a small portion of the polish added to it, and a most brilliant surface will be produced.

Another polish is made by mixing three ounces of linseed oil with one ounce of turpentine. Or, melt one ounce of white wax, pour it into a cup, and add four ounces of spirits of turpentine. These are applied with a flannel cloth, and rubbed until a brilliant surface is produced.

A furniture oil, for obliterating the marks left by hot dishes, the stains of wet glasses, etc., is compounded in the following manner: alkanet root, one part; shellae varnish, four parts; linseed oil, sixteen parts; spirits of turpentine, two parts; wax, two parts; mix, and let them stand for a week. This is applied in the same manner as the above.

1257. Greasing Wagons.—Few people fully appreciate the importance of thoroughly lubricating the axles of wagons and carriages, and still fewer know what are the best materials, and best methods of applying them. Tallow is the best lubricator for wooden axletrees, and castor oil for iron. Just grease enough should be applied to the spindle of a wagon to give it a light coating; this is better than more, for the surplus will work out at the ends, and be forced by the shoulder-bands and nut-washers into the hub around the outside of the boxes. To oil an axle-tree, first wipe the spindle clean with a cloth wet with spirits of turpentine, and then apply a few drops of castor oil near the shoulders and end. One teaspoonful is sufficient for the whole.

1258. Lemonade Powders.—Take of white sugar, four pounds; citric acid, powdered, one ounce and a half; essence of lemon, two drachms. Mix the sugar and acid, then add the essence, a few drops at a time, stirring the mixture after each addition till the whole is incorporated. One or two dessert spoonfuls, added to a tumblerful of cold water, produces an excellent lemonade.

1259. Lemon Juice.—In order to keep this article ready for use, the best plan is to buy the fruit when it is cheap, and lay it by for two or three days in a cool place. Squeeze the juice into a basin, and strain it through muslin, so as not to allow any of the pulp or pips to pass. Having prepared some small phials, perfectly dry, fill them with the juice so near the top as only to admit half a teaspoonful of sweet oil, which put in each. Cork the bottles securely, and set them upright in a cool place. When the lemon-juice is required for use, open only such a sized bottle as can be used in two or three days. Remove the oil, by dipping into the phial a skewer with some clean cotton wound round it, to which the oil will be attracted; and when all of it is removed, the juice will be as fresh and pure as when fresh bottled. The lemons used should be perfectly ripe.

1260. Ginger Beer.—There are several recipes for making this beverage, the following being the best.

i. Lump sugar, 1lb.; Jamaica ginger, well bruised, 1oz.; cream of tartar, ¾oz.; 2 lemons sliced; boiling water, 1 gallon. Macerate with frequent stirring, in a covered vessel, until barely lukewarm, then add of yeast, 1½ or 2ozs., and keep it in a moderately warm situation so as to excite a brisk fermentation; the next day rack the liquor and strain it through flannel; work for another day or two, according to the weather; then skim, or again strain, put it into bottles, and wire down the corks.

ii. Loaf sugar, 5lbs.; lemon-juice, 1 gill; honey, ¼lb.; bruised ginger, 6ozs.; water, 5 gallons. Boil the ginger in three quarts of the water for half an hour; then add the sugar, the juice, and the honey, with the remainder of the water, and strain through a cloth. When cold, add the white of an egg and two drachms of essence of lemon; after standing three or four days, bottle it.

iii. Take 1lb. of bruised ginger and the rind of 2 lemons; boil 14lbs. of loaf sugar and 1lb. of raisins in 11 gallons of water, pour this over the bruised ginger and lemon-rind, and add the juice of 18 lemons. When at a lukewarm temperature, add two or three spoonfuls of yeast, and let it ferment for a day or so; then put it into a cask to finish the fermentation, and when that is completed, fine it, and bung it down closely. It may be bottled in stone bottles almost immediately.

iv. *Quickly made*; pour a gallon of boiling water over ¾lb. of loaf sugar; 1¼oz. of sliced ginger, and the peel of 1 lemon; when milk-warm, add the juice of a lemon, and a spoonful of yeast.

1261. Meerschaum Pipe.—The substance of which meerschaum pipes are made is found floating in certain parts of the sea. It is also dug from the earth in several places in Turkey. A number of pipes are made to imitate meerschaum, and as such are palmed off upon the purchaser. To detect the imposition, draw a silver coin across the pipe; if genuine, no mark will be left; if spurious, the gypsum necessarily used will take a mark like that of pencil upon paper. The coloring of meerschaum pipes, by which their appearance is improved and their value enhanced, is best accomplished by sewing a piece of wash-leather round the bowl so as to cover all but the mouth of it; by this means the oil exuded from the pipe in the progress of smoking is more surely retained, while the bowl is prevented from being scratched or suddenly cooled by being inadvertently laid on one side when it is done with. The speedy and perfect coloring also depends in a great measure upon persistent smoking and by consuming the whole of the contents of the bowl, so that the influence is spread through every part of it. Meerschaum pipes are apt to become foul from time to time, when the tubes should be cleaned by a wire with a small brush attached, and which may be purchased at any tobacconist's shop. From continual smoking, also, the interior of the bowl is apt to become encrusted by a deposit which deteriorates the flavor of the tobacco, and prevents the pipe from being properly filled; this should be scraped out with a small knife.

1262. Smoking.—The effect that smoking of tobacco has upon the health, has been one of those vexed questions which have provoked a variety of opinions, according to the peculiar views held by the disputant. The most obvious injury which is apt to result from smoking, more or less, according to the extent in which it is indulged, is disorder and irritation of the digestive organs, frequently accompanied with depression of spirits, and at times with extreme nervous irritability, the latter being more especially manifested in an inveterate smoker, if, from illness or any cause,

his habitual indulgence is interfered with. The occurence of cancer in those who habitually smoke from a short pipe, and the injury to the teeth from smoking, and especially their discoloration, are notorious; further, there is a tendency to disease of the throat and air passages when this indulgence is followed to any great extent. Some persons, when smoking, expectorate freely, while others abstain from doing so. There cannot be a doubt that the unnatural degree of expectoration excited by smoking, has an injurious tendency on the health, as the saliva that is parted with is necessary for the purpose of promoting digestion, and the digestive organs being deprived of this essential ingredient, do not perform their functions with that regularity they otherwise would. Two of the unpleasant effects attending tobacco smoking, are the unpleasant taste it leaves in the mouth, and the disagreeable odor it imparts to the breath; and to remedy this as much as possible, the mouth should be freely washed with cold water immediately after smoking. The objections to smoking tobacco as a mere habit, do not of course extend to its employment as a remedy for disease, particularly of an asthmatic character, in which some persons derive the greatest benefit from its moderate use. In any case in which tobacco has produced low symptoms in an alarming degree, its use should be immediately discontinued.

1263. Night Light.—Many persons cannot sleep without a light in their chamber, and in cases of sickness it is frequently essential that there should always be a light burning. Night lights are now sold by most druggists, but when these cannot be procured they may be made as follows:—Make a *fine* cotton, and wax it with white wax. Then cut into the requisite lengths. Melt the grease, and pour into pill boxes, previously either fixing the cotton in the centre, or dropping it in just before the grease sets. If a little white wax be melted with the grease, all the better. In this manner, the ends and drippings of candles may be used up. When set to burn, place in a saucer, with sufficient water to rise to the extent of the 16th of an inch around the base of the night light. Persons should endeavor to sleep without lights in their bed-chamber if they possibly can, for, independent of the danger attending the practice, it is very unwholesome, as the flame consumes the oxygen, and thus deprives the sleeping person of a gas which is very essential to health.

1264. Driving.—The art of driving consists of a few simple rules. 1. Always keep to the right or *off* side, when passing another vehicle. 2. Do not turn sharply round corners, but give a full sweep, so as to allow room for any vehicle coming in an opposite direction. 3. When you pull up or turn round, intimate your intention by holding up your hand or whip, so that those behind you may be made aware of the fact. 4. When going dow hill, hold the reins tightly, as that will in some measure support the horse; when going up hill, the reins may be held slacker; at all times, however, the reins should be held in the hands with moderate firmness, so that you may check a horse on the instant when he stumbles. 5. Do not employ the whip too frequently, or tug capriciously at the reins; such treatment not only spoils a horse's temper, but renders him callous and indifferent to your command. 6. A horse will go a greater distance in a shorter space of time, and with less distress to himself, if driven at a moderate pace throughout, instead of galloping one moment, and being compelled to subside into a walk the next. 7. When a horse has the habit of shying, draw him gently aside from any startling object as you approach it; also hold the whip on the shady and not the sunny side of his body 8. If a shoe gets loose or comes off,

have it rectified as soon as possible, instead of waiting till you reach home; both the animal and yourself will perform the remainder of the journey with greater ease and comfort, and an attack of lameness may be prevented. 9. If a horse runs away, do not abandon all control over him, but continue to guide him as if he were going at an ordinary pace; generally speaking, the horse will yield mechanically to the rein, and thus danger may be escaped. 10. Treat a horse generally with gentleness and kindness, stroke his neck occasionally with the whip, pat his back, and now and then call to him by his name. Horses invariably express their gratification at these little attentions by their gestures, and renew their efforts and increase their pace, as a sort of grateful acknowledgment to the driver.

1265. Keep to your Calling.—A young man who commences his life with not liking his business has no very promising prospect before him. Let such a one believe himself to be under the immediate influence of "an evil eye," and set about releasing himself at once by a resolute refusal to entertain any thoughts but such as appertain to the duty clearly before him, and how to do it well and honestly. It is a great mistake to be possessed with a fanciful idea of advantage to be derived from any other calling than the one which circumstances have combined to impose on him, as an introduction to the busy responsibilities of life and manhood. How many have made shipwreck of their fairest hopes by feebly giving way to the delusion of being meant for better things than working at a bench or keeping a shop! To be above one's business is a mean pride that has its origin in indolence; betokens a dishonorable career, and an end in bankruptcy.

1266. Mental Exercise.—The mind, like the body, requires a certain amount of exercise to maintain it in a healthy condition; and like the body, it is also susceptible to fatigue, and liable to injury from overexertion. It will thus be obvious that a certain portion of each day should be set apart for mental culture; while, on the other hand, the exercise of the mental faculties should not be carried beyond a certain limit when once symptoms of fatigue have unmistakably shown themselves. The best period for mental exercise, both as regards the powers of the mind itself, and the general health, is early in the morning; but at such times the student should not set out upon his task without taking some refreshment, which may be as light and as little stimulating as possible. It is always injudicious to enter upon mental labor immediately after a full meal; under such circumstances the work performed requires double the usual amount of labor, with only one half the effect. As a general rule, a code of laws, similar to those which regulate the exercise of the body, apply to the exercise of the mind; it is rarely, therefore, that a person can make a mistake, especially if he keeps before his eyes the leading principles of moderation and regularity.

1267. Management of the Sick-Room.—The room in which a sick person is confined should be of considerable size, lofty, and furnished with a fireplace. It should, if possible, have a northern aspect, so as to protect it from the glare of the midday sun, and, if it can be so arranged, the apartment should abut from the house, so as to keep the patient from the noise and bustle of the family, and be equally removed from the sound of the door bell, the clatter of the scullery, and the smell of the kitchen. The window should have a movable top-sash, and should either face the door, or the door should be on a line with the fire place, to insure a complete draught, on which account the chimney-board, if one has been used, should be removed. The color of the walls is a matter of very considerable importance. Green, especially deep or bright green, is always to be

avoided; equally objectionable, though not equally hurtful, is a paper with a bold, staring pattern, with prominent colors. A small geometrical pattern, of squares, diamonds, or flowers, in horizontal or diagonal lines, is equally to be avoided, and, if possible, a paper selected of a pale, unobtrusive color, and with such figures on it as the eye may contemplate without perplexity, fatigue, or irritation. The importance of attending to these points is well known to every medical man who has had any practice in the treatment of fevers. In the first case, the greens indicated are always giving off fumes of arsenic, which is hurtful, if not dangerous; and in the other, the brain, in certain stages of fever, becomes irritated by the positive character of the paper, or exhausted by fruitless attemts to count the number of figures or flowers in the several lines.

1268. Bedding.—The kind of bedding for invalids is a subject of importance to their comfort. In some cases a well-stuffed feather bed is to be preferred to mattresses, which for fever or paralytic patients are not sufficiently yielding. By the constant pressure of any part of the body on the unyielding surface the part becomes inflamed and a sore ensues. A feather-bed may, however, be too soft, and become easily disarranged; the patient may be too ill to admit of the bed being made daily, and in such cases it becomes lumpy and extremely irritating. The spring mattresses are the most unobjectionable of any; they give way easily to pressure, and spring up by means of their elastic stuffings, as soon as the pressure is removed. They require no daily making, and afford the patient much assistance from their elasticity, in turning from one side to the other. On whatever bed a patient lies, it should be large enough to admit of his being removed from one side to the other, to admit of changes in the bed-linen, as well as to afford relief in posture to the sufferer; or if the bed be small, a second bed in the room answers the same ends, as well as admitting of daily exposure, for a short period, of the bed or bedding to the air of the room, when it may be again shaken well, and made and prepared for the invalid, to whom, when again carried, it will afford considerable relief and refreshment. The amount of bed-clothes employed must be left to the judgment of the nurse, and be regulated according to the season of the year, the nature of the disease, and the feelings of the patient. Air pillows and cushions should always form a portion of the bed-furniture; the first for ordinary purposes of rest, and the latter to relieve particular parts of the body from undue pressure, especially in case of bed-sores. The bedstead should be placed with the head a little way from the wall, and in such a situation as to be accessible from both sides, and entirely removed from the current of air between the door and window, or the window and fireplace.

1269. Furnishing.—In furnishing the sick-room, an easy chair, on which the patient can recline or sit erect, is an important item. There should also be a sofa or couch in the room, on which he can be placed while the bed is being made, or at any time a change is desired. The room, if large enough, should contain two tables: a small one to stand near the bed, and a larger one, having a drawer, which may occupy any convenient position. Upon the former should be placed the drink, medicine, and fruit in common use, with the glasses or vessels out of which each article is to be taken, and upon the latter should be arranged all the medicines not in constant use,—the external applications at one side, and the internal remedies at the other. A graduated medicine glass; a china or white delf cup, (with a spout, and covered half over the top) for giving medicine or drink to the patient when lying down; clean glasses, and a spoon of each of the three sizes, should be

arranged as a partition or barrier between the external and internal medicines. The drawer should contain lint, bandages, adhesive plaster, thread, pins, scissors, any ointment or cerate in use, and a spatula or knife for spreading it. A green or slate-colored blind should be attached to the window, to darken the room when required. The night-lamp, to afford light and heat, food or water, should always be in readiness. These, with a bed-pan, urinal, commode or earth-closet, are almost every thing which a sick-room can require, except on special occasions.

1270. THE TEMPERATURE.—The temperature of the sick-room is always a matter of considerable importance, and that the proper degree of warmth may always be understood and maintained, a thermometer should invariable form a part of the appurtenances of the sick-room, the instrument being placed against the wall in such a position that the nurse's eye may frequently notice its silent admonitions. Though 60° Fahrenheit is regarded as the standard degree of temperature, it is often desirable to reduce that amount to 59° or 58°, or indeed even lower in some cases of hæmorrhage. To effect this, a strong current must be established, either by partially opening the door or window, or by lighting a small fire for a few minutes in the grate, and, lastly, by the means of evaporation to be presently described. When it is necessary to raise the temperature above 60°, the strong currents of air are to be suspended for a time, the door and window securely closed, and a fire lighted in the grate, and the reading of the thermometer carefully attended to till the desired temperature has been reached, care being then taken to prevent the heat increasing or fluctuating.

1271. VENTILATION.—Well-ventilated rooms are in all cases of illness indispensable; yet ventilation should be so regulated that no current of air should pass immediately over the patient's bed or chair. It may always be supposed that draughts of air prevail in the direction of the fire-place, from any window or door; and hence, in such situations, the invalid should not be permitted either to lie or sit. In cases of fever especially, the ventilation of the sick-chamber demands attention, and will most materially expedite convalescence. To convey a clearer idea of the importance of good ventilation to the welfare of the invalid, it will be sufficient if in this place we mention that a healthy man, enclosed in a room, requires FOUR CUBIC FEET of fresh air *each minute* for the due performance of all his functions, and that he vitiates, or renders poisonous, about A HUNDRED AND THIRTY CUBIC INCHES *every minute*, by expiration from the lungs and skin. If this fact is borne in mind, the absolute importance of an abundance of pure air to the patient will become still more evident, especially as, in some diseases, an increased amount of oxygen becomes a vital necessity. Independent of supplying an abundance of pure air to the patient, ventilation is of the utmost consequence, not only in purifying the room, but in carrying from the atmosphere that surrounds the sick person those minute particles of morbific matter which are always given off from an unhealthy body, and, especially in certain contagious diseases, load the air with their poisonous particles. The two great sources of ventilation are the window and chimney; the one carrying off the upper stratum of impure air, and the other, those heavier gases which specific gravity keeps floating near the floor. Should the window not open from above, a piece of the top of each corner pane should be broken out, and a slip of pasteboard nailed to the frame above, to hang down like a valve over the broken glass, and which can be pushed up or let down, according as ventilation is required.

1272. CLEANLINESS.—Nowhere is cleanliness of such paramount impor-

tanee as in the sick-room. Fumigations, for the purpose of obviating or masking unpleasant odors in the siek ehamber, must never be employed to the negleet of eleanliness and ventilation; for most of them, instead of purifying the air, aetually render it less fit for respiration. The common practiee of burning seented paper, pastilles, ete., so as to ereate an odoriferous smoke, is of this eharacter. The fumes thus diffused through the atmosphere *disguise* unpleasant odors, but they aeeomplish nothing more. The infeetion, if any exist, remains unaltered, and in all sueh eases, disinfeetants should alone be used. In the ease of contagious diseases, earpets, clothes, dresses, and all articles of woollen fabric are to be removed from the room, and only as much furniture retained as is actually required for the use of the patient. (See *Disinfectants*, and *Ventilation.*)

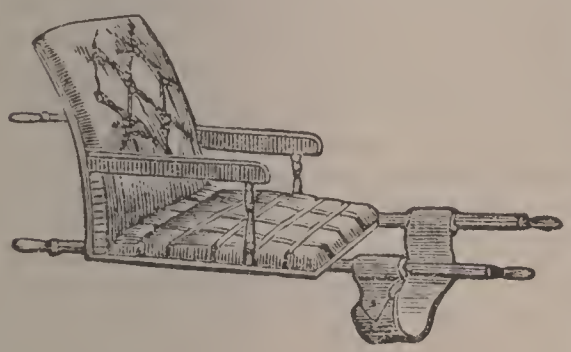
1273. Care of the Sick.—From the highest to the lowest none are, properly speaking, exempt from this charge. It is true that those who have means can hire experienced nurses; but still the responsibility and anxiety rests with the mistress, for she cannot hire affection, thoughtful care, and all those little attentions which make up the sole eomfort of an invalid. It eannot, therefore, be too strongly impressed on the mind of all who may be ealled on to minister to the wants of the sick, that every attention given, every service rendered, should be performed with the least possible noise and demonstration. The step should be light and noiseless, the voiee low and kind, and the serviee, whatever it may be, rendered with gentleness, eare, and despatch. Rattling of windows, slamming of doors, ereaking shoes, sudden noises, exelamations or fidgeting; monotonous sounds, such as the tieking of a watch or eloek, the rustling of dresses, and whispering, are all to be guarded against as positively injurious to the patient. The personal eleanliness of the patient is a matter of very great importanee. The faee, neck, and arms should be well washed, and the skin rubbed thoroughly dry with a fresh towel every morning. As a means of relief and eomfort, the patient's hands and faee may be oeeasionally washed during the day. When the patient's body cannot be eonveniently washed, the extremities, and as much of the body as possible, should be freely rubbed with the hand, or dry towels, every day. The elothes worn at night should never be allowed to remain on the body during the day; but as soon as the morning wash is finished, if the patient's strength will permit, elean elothes should be put on, eare being taken to air thoroughly all linen before it is used. When the patient is able to lie on the sofa for a short time, or sit up in the easy ehair, the bedelothes should be removed, and exposed to the air. When the patient desires to sit up in bed, or when it is found neeessary to plaee him in that position, the invalid bedehair, whieh ean be raised or lowered as desired, will be found useful; but if this eannot be had, a ehild's chair padded with pillows, will afford a eomfortable support to the baek. When the patient has to be moved, and the nurse is unable to earry him, she and another person should make a chair of their arms—this is done by the persons elasping hands under his hips, and behind his baek, while he passes his arms aromnd their necks—and then with as little jar as possible, remove the patient to the place desired. When from exhaustion, this method is impossible, the patient may be taken up bodily, by four persons, in the sheet on which he lies, and in this manner transferred from one bed to another. There is another most imperative duty devolving upon the attendant, where the invalid is eompelled to remain long in one position; and that is, a daily and aeeurate inspeetion of the skin of the back and hips, so as to be able to deteet the first approach of injury from

pressure, and thus be able to guard against the serious consequences of bed sores. (See *Bed Sores.*) In a word, nothing that humanity can dictate, or experience suggest, should be disregarded in the management of the sick chamber; and no time or labor can be ill bestowed in bringing to bear the numerous kind offices which the sick demand at our hands, and which it may be our lot one day to require.

1274. Cautions to be observed in Administering Medicine.—Follow strictly the medical directions in taking or administering medicine at the time stated. Rinse the mouth well with water after taking medicine; it not only prevents a disagreeable taste, but tends to preserve the teeth, which are liable to be injured by the action of many drugs. Always read the directions appended to medicines, so as to prevent the possibility of making a mistake. Be particularly careful when a draught and a lotion are being used by the same person, to keep the bottles distinct; and to preclude the most remote probability of a mistake, place some distinguishing mark upon one of the bottles, so that its use may become fully impressed upon the mind. In administering or taking medicine during the night, do it by the aid of a light. The neglect of these two last-named precautions has been productive of considerable loss of life. Always use a clean glass with every fresh dose; the dregs of the previous draught, if suffered to mingle with the recent one, are apt to deteriorate its qualities and weaken its effects. Children have a great antipathy to medicine of every kind; when, therefore, you consider it necessary to administer a dose to them, do not suffer them to see the manipulation of it, but take them by surprise, so as to conceal your intention. When a person is undergoing a course of medicine, he should pay scrupulous attention to the orders given to him by his medical attendant, with respect to diet and regimen. It stands to reason that under the influence of medicine, the system is diverted from its ordinary course, and requires what may be termed humoring; this precaution, also, renders the struggle less obstinate, and expedites recovery.

1275. Convalescence.—By this term is understood the period between the cure of a disease and the perfect recovery of the patient. The stage of convalescence requires much and careful watching, that the two indications to be fulfilled may be properly understood and vigilantly provided for; namely, to restore the strength, and guard against a relapse. Much good may be effected by placing before a patient some pleasing and grateful object, thus a bouquet of fresh flowers, placed upon the table in the invalid's view is calculated to exercise a beneficial effect upon his susceptible and sensitive system. The sight of old and dear friends is also calculated to aid recovery, and if these visits can be managed impromptu as it were, without any parade or bustle, so much the better. When the patient is capable of sitting up, a seat contrived for him near the window, so that he may look out without fatiguing himself, will be very acceptable to him; and when he gets better still, and is just able to move about, the arm of a friend on either side to assist his steps across the chamber will be of material assistance and comfort to him. It is frequently considered beneficial to order an invalid to leave his bed-room before he has quite recovered his strength; the depressing influence of the chamber of sickness, and the relief afforded by a removal into another and more cheerful apartment, being one of the most certain means, not only of regaining bodily strength, but of re-establishing mental vigor. Where, however, the distance between the sick-chamber is great, and difficult to arrive at, the transporting of the invalid is frequently attended with so much inconvenience and so many rude shocks,

that the contemplated benefit of the change of room is defeated by the difficulties experienced in getting there, and the patient is frequently disturbed and shaken for the rest of the day. To obviate these ill effects a chair has been constructed for carrying invalids up and down stairs, as here shown, and by the aid of which the invalid may be removed from one apartment to another with the least possible inconvenience and disturbance. This chair may be brought to the bedside and held on a level with the bed, so that the patient may be gently lifted into it without any perceptible change of position. The seat and back are made sufficiently capacious to receive the body, and the legs may hang down on the receptacle constructed for them.



One person proceeding in front and another following behind, and both timing their steps and motions together, the invalid may thus be carried any distance without tiring or disturbing him. When he has reached the room he may be lifted out of the chair gently on to the couch; and when it is considered advisable to remove him back to his bed-chamber, the process may be conducted noiselessly and gently, as before.

1276. Rules to be Observed in Dressing Wounds, etc.—A few necessary directions to prevent confusion and embarrassment in applying surgical dressings will not be out of place here: Always prepare the new dressing before removing the old one. Always have hot and cold water at hand, and a vessel in which to place the foul dressings. Have one or more persons ready to assist, and tell each person what they are to do before you commence (it prevents confusion): thus,—one to wash out and hand the sponges, another to heat the adhesive plaster, or hand the bandages and dressings, and, if requisite, a third to support the limb, etc. Always stand on the *outside* of a limb to dress it. Place the patient in as easy a position as possible, so as not to fatigue him. Arrange the bed after changing the dressings; but in some cases it will be necessary to do so before the patient is placed on it. *Never be in a hurry when applying dressings; do it quietly.* When a patient requires moving from one bed to another, the best way is for a person to stand on each side of the patient, and each to place an arm behind his back, while he passes his arms over their necks; then let their other arms be passed under his thighs, and by holding each other's hands the patient can be raised with ease, and removed to another bed. If the leg is injured, a third person should steady it; and if the arm, the same precaution should be adopted. Sometimes a stout sheet is passed under the person, and by several people holding the sides, the patient is lifted without any fatigue or much disturbance.

1277. Visiting the Sick.—In visiting a sick friend you should ask as few questions as possible; avoid the mention of any distressing intelligence, eschew all medical themes, and confine your conversation to light and agreeable subjects. In all cases the visit should be short, and at no time, while the patient is confined to bed, should it be longer than ten minutes. It is important in visiting the sick, that the person, whether sitting or standing, should be in such a position that the air from the door or window may come from behind him, to the patient, and not from the patient to the friend. *No sensible man or woman will feel slighted, or take offence, if politely refused admittance to the sick-room.*

1278. The Nurse.—In eases of illness, the patient's reeovery depends almost as much upon the nurse as upon the medical treatment; and it is absolutely neeessary that some one should be in attendanee on the siek, to earry out the direetions of the doetor, and to administer to the numerous wants of the patient. The person ehosen for this offiee, should be neither too young nor too old, and few are fit to oeeupy such a post under thirty years of age, or to retain it beyond sixty. As a matter of course, a nurse should enjoy good health and possess the strength and stature neeessary for lifting and moving the patient. Aetivity, order, and eleanliness are indispensable. A eheerful temper and an obliging disposition, it is almost needless to mention. All bad habits, such as snuffing, smoking, and immoderate drinking, are to be decried; also unusual and irritating noises, as coughing, sniffing, humming, etc. A nurse ought to be a light sleeper, awake to the slightest call or movement, and no snorer; she should also be quiek and yet light in her movements, and able to perform all her offiees without noise or bustle. It is frequently necessary that a nurse should be able to exercise considerable influence over the invalid, and to aeeomplish this she must be firm without being rough, and determined without exhibiting anger. Good judgment on the part of the nurse is of great eonsequenee; thus, in conversing with the person under her care, she should avoid all topics of a gloomy and repulsive nature; and having studied the whims and prejudices of the invalid, endeavor to interest and amuse, by discoursing upon eongenial topies. A nurse ought to be able to read perfeetly, so that she may administer the medicine, and follow other written direetions without error. This qualifieation will also render the nurse an agreeable companion, as she may read to the patient when he is unable to do so himself. Even the dress of the nurse should be studied; she should not attire herself in habiliments either of too sombre or too gaudy a eharaeter, a light-eolored and neat apparel will be most grateful to the eye. Nurses are entitled to a eertain amount of eonsideration from those who employ them. Their eonfinement in the sick ehamber should be relieved for an hour or two during the day, so that they may have an opportunity of taking air and exercise, both for their own sake and that of the patient. They should also be treated with kindness and respeet by the various members of the family, and be made to feel that their offices are rather those of a friend than a servant.

1279. Duties of the Nurse.—Having spoken of the moral and physical qualities of the nurse, we shall now speak of some of the duties which devolve upon her when in eharge of the siek room. In the first place, the nurse should regard herself, and be so considered by the friends and relatives of the patient, as the doctor's *locum tenens* (deputy or substitute), and invested with absolute eontrol over the patient and siek room during his absenee. It is to the nurse that the physieian eonveys his instruetions; to her general discretion he eommits the well-being of his patient during his absenee; and it is to him she should make her reports. She should see that too many visitors are not allowed to see the patient at one time, or in one day; she should range all the bottles on the reserve table, as we have direeted, with the label of eaeh turned outwards, and make a praetiee of never giving any medicine without first *looking at the direction*. She should have a small slate always at hand, on whieh to make notes of any special instruction given by the doctor, or of faets that may have occurred in his absence. She must remove to another room all that passes from the patient, which, unless kept for after inspeetion, should be directly emptied; have the vessels washed out, rinsed with ehloride of lime, and dried before returning them

to the room. If the secretions are to be kept, she must be careful that nothing is thrown in, or mixed with them, as their entire character may be altered by emptying medicine, tea, or other articles on either.

1280. The Duties of Physicians to their Patients.—i. A physician should not only be ever ready to obey the calls of the sick, but his mind ought also to be imbued with the greatness of his mission, and the responsibility he habitually incurs in its discharge. Those obligations are the more deep and enduring, because there is no tribunal, other than his own conscience, to adjudge penalties for carelessness or neglect. Physicians should, therefore, minister to the sick with due impressions of the importance of their office; reflecting that the ease, the health, and the lives of those committed to their charge, depend on their skill, attention, and fidelity. They should study, also, in their deportment, so to unite *tenderness* with *firmness*, and *condescension* with *authority*, as to inspire the minds of their patients with gratitude, respect, and confidence.

ii. Every case committed to the charge of a physician should be treated with attention, steadiness, and humanity. Reasonable indulgence should be granted to the mental imbecility and caprices of the sick. Secrecy and delicacy, when required by peculiar circumstances, should be strictly observed; and the familiar and confidential intercourse to which physicians are admitted in their professional visits, should be used with discretion, and with the most scrupulous regard to fidelity and honor. The obligation of secrecy extends beyond the period of professional services; none of the privacies of personal and domestic life, no infirmity of disposition or flaw of character observed during professional attendance should ever be divulged by the physician, except when he is imperatively required to do so. The force and necessity of this obligation are indeed so great, that professional men have, under certain circumstances, been protected in their observance of secrecy by courts of justice.

iii. Frequent visits to the sick are in general requisite, since they enable the physician to arrive at a more perfect knowledge of the disease—to meet promptly every change which may occur, and also tend to preserve the confidence of the patient. But unnecessary visits are to be avoided, as they give useless anxiety to the patient, tend to diminish the authority of the physician, and render him liable to be suspected of interested motives.

iv. A physician should not be forward to make gloomy prognostications, because they savor of empiricism, by magnifying the importance of his services in the treatment or cure of the disease. But he should not fail, on proper occasions, to give to the friends of the patient timely notice of danger when it really occurs; and even to the patient himself, if absolutely necessary. This office, however, is so peculiarly alarming when executed by him, that it ought to be declined whenever it can be assigned to any other person of sufficient judgment and delicacy. For the physician should be the minister of hope and comfort to the sick; that, by such cordials to the drooping spirit, he may smooth the bed of death, revive expiring life, and counteract the depressing influence of those maladies which often disturb the tranquillity of the most resigned in their last moments. The life of a sick person can be shortened not only by the acts, but also by the words or the manner of a physician. It is, therefore, a sacred duty to guard himself carefully in this respect, and to avoid all things which have a tendency to discourage the patient and to depress his spirits.

v. A physician ought not to abandon a patient because the case is deemed incurable; for his attendance may continue to be highly useful to the patient, and comforting to the relatives around him, even in the last period of a fatal

malady, by alleviating pain and other symptoms, and by soothing mental anguish. To decline attendance, under such circumstances, would be sacrificing to fanciful delicacy and mistaken liberality, that moral duty which is independent of and far superior to, all pecuniary consideration.

vi. Consultations should be promoted in difficult or protacted cases, as they give rise to confidence, energy, and more enlarged views in practice.

vii. The opportunity which a physician not unfrequently enjoys of promoting and strengthening the good resolutions of his patients, suffering under the consequences of vicious conduct, ought never to be neglected. His counsels, or even remonstrances, will give satisfaction, not offence, if they be proffered with politeness, and evince a genuine love of virtue, accompanied by a sincere interest in the welfare of the person to whom they are addressed.—*American Medical Association.*

1281. The Obligations of Patients to their Physicians.—i. The members of the medical profession, upon whom is enjoined the performance of so many important and arduous duties toward the community, and who are required to make so many sacrifices of comfort, ease, and health, for the welfare of those who avail themselves of their services, certainly have a right to expect and require, that their patients should entertain a just sense of the duties which they owe to their medical attendants.

ii. The first duty of a patient is, to select as his medical adviser one who has received a regular professional education. In no trade or occupation do mankind rely on the skill of an untaught artist; and in medicine, confessedly the most difficult and intricate of the sciences, the world ought not to suppose that knowledge is intuitive.

iii. Patients should prefer a physician whose habits of life are regular, and who is not devoted to company, pleasure, or to any pursuit incompatible with his professional obligations. A patient should also confide the care of himself and family, as much as possible, to one physician; for a medical man who has become acquainted with the peculiarities of constitution, habits, and predispositions of those he attends, is more likely to be successful in his treatment than one who does not possess that knowledge. A patient who has thus selected his physican, should always apply for advice in what may appear to him trivial cases; for the most fatal results often supervene on the slightest accidents. It is of still more importance that he should apply for assistance in the forming stage of violent diseases; it is to a neglect of this precept that medicine owes much of the uncertainty and imperfection with which it has been reproached.

iv. Patients should faithfully and unreservedly communicate to their physician the supposed cause of their disease. This is the more important, as many diseases of a mental origin simulate those depending on external causes, and yet are only to be cured by ministering to the mind diseased. A patient should never be afraid of thus making his physician his friend and adviser; he should always bear in mind that a medical man is under the strongest obligations of secrecy. Even the female sex should never allow feelings of shame or delicacy to prevent their disclosing the seat, symptoms, and causes of complaints peculiar to them. However commendable a modest reserve may be in the common occurrences of life, its strict observance in medicine is often attended with the most serious consequences, and a patient may sink under a painful and loathsome disease, which might have been readily prevented had timely intimation been given to the physician.

v. A patient should never weary his physician with a tedious detail of events or matters not appertaining to his disease. Even as relates to his actual symptoms, he will convey much more real information by giving clear answers to interrogatories, than by the most

minute account of his own framing. Neither should he obtrude upon his physician the details of his business, nor the history of his family concerns.

vi. The obedience of a patient to the prescriptions of his physician should be prompt and implicit. He should never permit his own crude opinions, as to their fitness, to influence his attention to them. A failure in one particular may render an otherwise judicious treatment dangerous, and even fatal. This remark is equally applicable to diet, drink, and exercise. As patients become convalescent, they are very apt to suppose that the rules prescribed for them may be disregarded; and the consequence, but too often, is a relapse. Patients should never allow themselves to be persuaded to take any medicine whatever that may be recommended to them by the self-constituted doctors and doctresses who are so frequently met with, and who pretend to possess infallible remedies for the cure of every disease. However simple some of their prescriptions may appear to be, it often happens that they are productive of much mischief, and in all cases they are injurious, by contravening the plan of treatment adopted by the physician.

vii. A patient should, if possible, avoid even the *friendly visits of a physician* who is not attending him; and when he does receive them, he should never converse on the subject of his disease, as an observation may be made, without any intention of interference, which may destroy his confidence in the course he is pursuing, and induce him to neglect the directions prescribed to him. A patient should never send for a consulting physician without the express consent of his own medical attendant. It is of great importance that physicians should act in concert; for, although their modes of treatment may be attended with equal success when employed singly, yet conjointly they are very likely to be productive of disastrous results.

viii. When a patient wishes to dismiss his physician, justice and common courtesy require that he should declare his reasons for so doing.

ix. Patients should always, when practicable, send for their physician in the morning, before his usual hour of going out; for, by being early aware of the visits he has to pay during the day, the physician is able to apportion his time in such a manner as to prevent an interference of engagements. Patients should also avoid calling on their medical adviser unnecessarily during the hours devoted to meals or sleep. They should always be in readiness to receive the visits of their physician, as the detention of a few minutes is often of serious inconvenience to him.

x. A patient should, after his recovery, entertain a just and enduring sense of the value of the services rendered him by his physician; for these are of such a character that no mere pecuniary acknowledgment can repay or cancel them.—*American Medical Association.*

1282. Bed-Sores.—In disease the skin loses its power of resistance, by the absorption of the adipose tissue lying between it and the muscles; and if pressure upon any part be long continued, a bed-sore will be the result. As bed-sores are attended with great pain and inconvenience, and not unfrequently terminate in gangrene or sloughing, their prevention is a matter of the greatest importance to the patient. The attendant should, therefore, examine the patient daily, and if the slightest redness, or discoloration is observed, *the pressure must be removed.* For this purpose, a tubular piece of silk or buckskin, stuffed with cotton or wool, and formed into a ring, may be placed so as to encircle the spot, and thus prevent it from coming in contact with the bed. But a much better contrivance, and one that will add to the comfort of the patient at any time, is the Air-ring, or the Air-cushion. These useful appliances are made of a

textile fabric, rendered air-tight by a coating of the solution of India-rubber. At one corner is a mouth-piece fitted with a screw; when the cushion is required, by unloosing the screw, and blowing into the mouth-piece, the cushion becomes expanded, the screw is then tightened, and the air remains until the cushion is no further required, when the air is freed by turning the screw in a contrary direction.

1283. Poultices.—These external applications are used to promote suppuration, allay inflammation, relieve pain, and resolve tumors. Poultices are generally prepared with substances capable of absorbing much water, and assuming a pulpy consistence, so as to admit of their application to any surface, however irregular. Their curative action principally depends upon the liquids with which they are moistened, and the heat retained by the mass. With this object they should never be heavy, or very bulky, and should be frequently repeated, and lightly but securely bandaged on, to prevent displacement. The addition of a little lard, olive oil, or glycerine to a poultice, tends greatly to promote its emollient action, and to retard its hardening.

1284. Mustard Poultice.—This is one of the safest, and frequently the most efficacious remedy in the practice of domestic medicine. For all sudden and acute pains, especially of the chest and the abdomen, this remedy may, in nearly every instance, be resorted to without fear of any evil consequences; and even where it does not effect any permanent benefit, it never fails to afford temporary ease and alleviation during the interval that the medical attendant is being sent for. In making the mustard plaster, good fresh mustard should be used, mixed with water, as for the table, and spread on muslin or paper. The usual length of time a mustard plaster can be borne is from twenty minutes to half an hour. When the plaster is applied, a piece of thin gauze or muslin should be interposed between it and the skin; for by this precaution, the potency of the plaster is not diminished, and all irritation of the skin is avoided.

1285. Bread and Water Poultice.—This kind of poultice is too often made in a manner at variance with all the known laws of evaporation, either by pouring hot water on crumbs of bread, or on pieces of bread, and then breaking them down with a spoon or a fork. The proper method of making such a poultice is to cut a slice of bread from a loaf about half an inch thick, remove all the crust and hard edges without cracking the crumb, which, with a sharp knife, should be squared to the size required. The piece is next to be placed in the middle of a slip of muslin laid in a soup plate, then carefully covered with hot water, the rest of the muslin laid over the top, and another plate placed over all to keep in the heat for the space of two or three minutes, till every part of the bread has become charged or swollen by the water, which is to be poured off by taking up the two plates together, when a small amount of pressure will expel the excess of water without breaking the poultice, which is then to be carefully lifted by the ends of the muslin which encloses it, and laid on the part.

1286. Flaxseed Poultice.—This substance, from the quantity of gum and oil it contains, makes an excellently soft and agreeable poultice, the former serving to retain the heat a long time, and the latter to keep the surface soft. As much meal as is requisite is to be put in a basin, a hole made in the centre with a spoon, and as much hot water as may be deemed necessary poured at once into it; the whole is then to be quickly and carefully stirred till a smooth and intimately mixed mass of the consistency of porridge is obtained. Should too little water be used, the mass will be hard and lumpy, and cause much delay and trouble in the amalgamation of the water subsequently added, whereas if

the quantity is rightly guessed at first, the poultice will be of one uniform consistency. It is then to be spread about an inch thick on linen or flannel.

1287. Mush Poultice. — This poultice is made with boiling water and corn meal; the meal being stirred in just as you would for mush. This is an excellent poultice, where warmth is the object, as the meal retains the heat. A second poultice should always be made, so that it can be applied as soon as the first loses its warmth.

1288. Hop Poultice.—Put equal quantities of vinegar and water into a stewpan, and warm; add your hops and thicken with a little corn meal. Or, make a bag of the desired size, fill it with hops, steep it in scalding water for a few minutes, then wring out and apply to the part affected.

1289. Yeast Poultice. — This may be made in several ways,—first, by mixing one or two tablespoonfuls of yeast with the same amount of flour, and then adding enough hot water to make the whole into a smooth paste, which is to be spread on flannel, and laid on the ulcer or sore. Secondly, by mixing four tablespoonfuls of linseed meal with two of yeast, and the same quantity of boiling water, or enough to make a smooth paste, to be applied on flannel. Thirdly, take a thick slice of bread without crust, soften it with boiling water, and then cover the top with fresh yeast, and apply the yeast side to the ulcer; or the yeast may be applied on piline, first made warm and soft by hot water.

1290. Charcoal Poultices.— These are made by mixing charcoal and flour and linseed meal, in nearly equal quantities, in a basin, adding hot water, and stirring till a smooth paste is made, which is to be applied, like the others, on flannel.

1291. Alum Poultices are only used as an astringent in certain chronic inflammations of the eye. This poultice is made by mixing the white of two or more eggs with a drachm of finely-powdered alum: put the mixture between a fold of muslin, and apply it to the eye.

1292. Cold Bread and Water Poultices are sometimes employed, and when such are necessary, they are made in the same way as the hot bread poultice, only substituting cold water; and when cold astringent poultices are required, all that is necessary is to soak the bread in a solution of alum, and apply it cold as often as the poultice becomes warm from contact with the flesh.

1293. Toothache.—There are few of the physical sufferings of life more dreaded than this comparatively insignificant misfortune. As toothache is too well known to require any description, it only remains for us to point out how it may be relieved or cured. When the tooth is decayed we know of no better remedy than the following: take of chloroform, two drachms; oil of cloves, half a drachm; mix and keep in a well stoppered bottle. It should be applied by saturating a small piece of cotton with the mixture, and placing it in the cavity. When the toothache is the result of cold, warm fomentations should be applied to the face; or a warm brick, covered with a flannel cloth, and freely sprinkled with vinegar, may be held to the face.

1294. Preservation of Health. —The preservation of health depends in a great measure upon ourselves, that is to say, in observing certain rules and adopting definite principles in every condition of life which reason and experience alike teach us as being salutary and beneficial. It becomes, therefore, important to ascertain what are the conditions essential to health; a general acquaintance with these conditions may be easily attained by all, and the putting them into practice is much more within the power of individuals than is commonly supposed. The leading conditions essential to health are: 1. A constant supply of pure air. 2. A sufficiency of nourish-

ing food, rightly taken. 3. Ample and appropriate clothing for the various seasons. 4. A sufficiency of exercise to the various organs of the system. 5. A proper temperature. 6. Constant employment of the mind. 7. Occasional relaxation from labor, and a sufficiency of cheerful and innocent enjoyments.

In keeping with the above principles for the preservation of health, the following particular rules are worthy of being remembered and followed out.

i. Rise early and retire to rest early.

ii. Wash the whole body frequently with cold water, and rub it well with a rough towel.

iii. Drink water generally, and avoid excess of spirits, wine, and fermented liquors. Sleep in a room which has free access to the open air, and is well ventilated.

iv. When symptoms of uneasiness, fulness, or indigestion are felt, practise abstinence before having recourse to medicine.

v. Never eat a hearty supper, especially of animal food or hot viands; and do not retire to rest until two hours at least after the meal has been taken.

vi. Take exercise daily, when able to do so no matter what the state of the weather may be.

vii. Keep all impurities away from your abode, and insist upon the utmost cleanliness being observed in every department of the household.

viii. Avoid sudden alternations of temperature or any unnecessary exposure to evil influences, such as standing in a draught, sleeping immediately beneath an open window, and other obvious imprudences.

ix. Endeavor to preserve an equable frame of mind, a good temper, and a cheerful disposition, and do not suffer business anxieties or other cares to engross the mind too much.

x. Employ the mind in useful and elevating pursuits, and the hands in such occupations as are congenial.

xi. Above all, remember the word "moderation;" and whether in eating, drinking, or exercise—in business, pleasure, or in any act or pursuit—obey that impulse which whispers "enough," and cries "forbear."

1295. The Reason for the Leap Year.—The reason for the leap year is as follows: The astronomical year is the time of one revolution of the earth around the sun, which is 365 days 5 hours 48 minutes 48 seconds. If the year be called 365 days, it will lack 5 hours 48 minutes 48 seconds of the true time, which in 4 years would amount to nearly 1 day. Hence one day is added every 4 years, making the leap year. But by making every fourth year a leap year, we add too much by 11 minutes 12 seconds, and this occurring every year for 100 years, would amount to $18\frac{2}{3}$ hours, or nearly a day. Hence on the hundredth year the intercalary day is dropped. But in dropping 1 day we drop too much by $5\frac{1}{3}$ hours, and if this were done every centennial year for four times, we should drop $21\frac{1}{3}$ hours, or nearly 1 day too much. Hence, every fourth of the centennial years is considered a leap year. There is still an error of $2\frac{2}{3}$ hours occurring once in 400 years, which in 3600 years would amount to 1 day. Hence:

Every year that is divisible by 4 *except centennial years, is a leap year.*

Every centennial year divisible by 400 *is a leap year.*

1296. Hints to Husbands.—To husbands we would say, regard your home as the place where both duty and inclination should lead you; do not suffer yourself to be weaned from it by fleeting and unstable attractions abroad, for these cannot conduce to any permanent pleasure, and are calculated to be productive of much unhappiness to you and yours. Forget all business cares when you enter your home, and enter cheerfully into such amusement and conversation as you think are calculated to please. Show that you appreciate the efforts which are being made to promote your com-

fort, by a few words of encouragement and gratitude, timely spoken and tenderly expressed. Avoid fault-finding and a display of petulance and ill-temper at any little accident or irregularity. Remember that perfection is an impossibility, and a good wife is sufficiently grieved by a domestic misadventure, without needing your reproach by way of aggravation. Endeavor to conform your habits to the the arrangements made, and do not scruple to make any little personal sacrifices that may conduce to the comfort of the household generally. Do not intermeddle with the purely domestic regulations of the house; as, for instance, giving orders directly contrary to those already given by your wife; such a step as this is not only offensive to her, but is calculated to engender confusion and disrespect among the servants. If you have any complaint to make against the domestics, let it be made through the medium of your wife, and not by you directly; the less a master speaks to a female servant the better will he be served and respected. Second the efforts that are made for order and regularity, by being orderly and regular yourself; thus, instead of throwing articles of wearing apparel, or books and papers about in all directions, put them in the place usually appointed for them. Do not occupy yourself too much in reading newspapers or books, or in any other exclusive and selfish pursuit. Remember that noble generosity, forbearance, amiability, and integrity are among the more lordly attributes of man. As a husband, therefore, exhibit the true nobility of man, and seek to govern your own household by the display of high moral excellence. A domineering spirit—a fault-finding petulance—impatience of trifling delays—and the exhibition of unworthy passion at the slightest provocation, can impart no sweetness to home, and can call forth no respect from those by whom you may be surrounded. It is one thing to be a *master*—another thing to be a *man*. Entertain company occasionally, and have a few friends now and then to grace your fireside; it is possible for two persons with the best intentions and the most amiable of tempers, to fail in amusing and interesting each other, if constantly left to their own resources. Lastly—and this applies equally to husband and wife—do nothing surreptitiously and discountenance anything like separate interests. Repose the strongest faith and confidence in each other, and strive to avoid any act or deed which can in any way disturb this mutual reliance.

1297. Hints to Wives.—In the first place, the wife must not draw too highly colored a picture of her possible home, for if so she is sure to be disappointed; much of the apparent unhappines of wives, is owing to a view having been taken of human life, which is more poetical than practical. Under all circumstances, a wife must school herself to look at the bright side of things, and make the best of them—not vainly repining at wants and defects, but setting to work to contrive the means of remedying and repairing them. A due appreciation of the value of time is also well worthy of consideration; each day should have its work planned out, and each hour the performance of certain duties allotted to it. By this means matters will progress regularly and smoothly, and all that bustle, disorder, and confusion, so frequently witnessed will be avoided. Suffer no one, not even the nearest relative or dearest friend, to interfere in the management of your domestic concerns; do that which you consider to be right, and it is almost certain to be so. Discourage the visits of mere gossips, who, by uselessly monopolizing your time, prevent you from paying proper attention to your domestic duties. Do not scold your servants before your husband; this is a common method by which bad housewives endeavor to excuse their own shortcomings. Contrive from

time to time, new pleasures and fresh gratifications; these are certain to be appreciated, and may be projected by an ordinary exercise of judgment and intelligence. A wife should study her husband's tastes and distastes, and to a certain extent even gratify his whims; by pursuing this line of conduct, she will more surely retain the affection of her husband, and be enabled to exercise influence over him, than by the practice of antagonism. Another point for the wife to observe is the exercise of economy; comfort does not precisely depend upon the amount of money expended; for a shrewd and thoughtful woman will be able to show considerable more value for her money than another who is thoughtless and extravagant. The exercise of economy is not to be governed by present necessities only, but with a view to future emergencies. The most prosperous may at some time or other meet with a reverse, and wasteful expenditure cannot be defended under any circumstances. A wife should never neglect the accomplishments, the tasteful dress and adornments which enthralled the lover; for by so doing she not only risks her happiness, for it depends on him, but she neglects what ought to be her highest ambition—that of proving how much dearer is the wife than the mistress. Matrimony may bind a man to his wife legally, but herself only can retain her empire over his heart. All that a wife has to do to secure substantial comfort and lasting happiness, is to turn her thoughts homeward, without suffering them to be distracted by extraneous matters, and determine within herself to make her little domain as pleasant and cheerful as the means and appliances at her command will permit.

1298. To Wash a Sheepskin Mat.—The first thing to be remembered is that it must not be washed in too hot water, as that would spoil the color of the wool and make it quite yellow. Boiled soap must be used in sufficient quantity to clean the skin well, after which it must be thoroughly rinsed in cold water until the whole of the soap is removed. It should now be put into water with blue in it, of which enough should be used to make it a clear white. The mat may be put in the sun to dry, but care must be taken not to leave in too long, nor to put the skin uppermost, but always the fleecy part, otherwise it will become stiff and will crack. To prevent all chance of this, it must be very frequently shaken while drying, as this is an important part of the process, and is of as much consequence as the washing. If the mat be a colored one, some ox-gall should be mixed with the boiled soap to preserve the dye. A colored mat does not require bluing.

1299. Memory.—The exercise of memory is an art within the compass of any person possessed of ordinary ability and intelligence. Forgetfulness is, in the majority of instances, another word for indifference since it is notorious that persons nearly always contrive to remember matters, however indefinite or remote, where self-interest is concerned. This view of the case is taken by the world generally; so that to tell a person that you have forgotten a certain thing in which that person was chiefly interested, is tantamount to confessing that you did not feel inclined to take the trouble which would be entailed. When we consider how much of our happiness and comfort in the world depends upon mutual assistance, and that many of these performances are the result of previous promises, it becomes essential to both ourselves and others that our word may be relied on. In business transactions, the exercise of memory is of the utmost importance; so much so, that when this faculty is defective, the unhappy possessor is simply regarded as incompetent, and totally unfit for the post he occupies. To escape the disgrace and humiliation which are thus entailed, it behoves every person, whose memory is what is termed de-

fective, to make the most strenuous exertions to improve it.

1300. Mental Discipline.—It seems to be thought by many, that the design of edueation is the communication of knowledge to passive minds to be laid up for use in the storehouse of memory. But as well might all the products of agriculture and the mechanic arts be laid up for future use by the young agriculturist and mechanic. It is the acquisition of vigor and skill for a future productive industry, which constitutes a proper physical training; and it is vigor and dexterity of mind in the acquisition and application of knowledge, which constitute the object of mental training. Elementary principles must be ascertained. No man can understand any science, or anything, who cannot lay his hand on the elementary principles, and by the light of these trace out the relations and dependencies of the whole. These are the keys of knowledge, to which all the sciences open their arcana, and without which they remain inexorably shut to all manner of demand and solicitation. Without this knowledge of first principles, a man will behold truth always in isolated fragments, and be surrounded by a wilderness of light. Such knowledge is like a mass of disordered mechanism; confusion worse confounded, and utterly incapable of use; a maze overwhelming and inextricable. There must be a precision of thought. The mind cannot be thoroughly exercised without it; and nothing worthy of the name of knowledge can otherwise be gained. There are many who go round a subject, and pass between its parts, and verily think they understand it, who, when called upon for an accurate description, can only hesitate and stammer amid the glimmering of their undefined moonbeams of knowledge. Why is this? It is because they have acquired no definite knowledge of the subjects they have studied. They understand all subjects in general, and none in particular; and for the purposes of exact knowledge adapted to use, might as well have been stargazing through a dim telescope in a foggy night. Everything is what it is exactly, and not merely almost; and for purposes of science or use, a hair's breadth discrepancy is as fatal as the discrepancy of a mile. Who could raise a building where every mortice and tenon only almost fitted? or construct a useful almanac when his calculations were almost, but not altogether exact?

It is this precision of knowledge which it is necessary to acquire; and without it, not only are the blessings of an education lost, but the multiplied evils of undisciplined minds—indefinite conceptions and fallacious reasonings, and the bewilderment of a declamatory flippancy of specious words—are poured out upon society with an overflowing flood, sweeping away the landmarks of truth and principle, and covering the surface with brush, and leaves, and gravel. No wonder that scepticism is rife, which proclaims knowledge to be unattainable, and all things doubtful. What other result could be expected from minds reared without first principles, and reasoning without precision of conception, in respect either to words, thoughts, or things? The art of independent investigation is of primary importance. We should be accustomed to explore every subject, to analyze and take it apart, ascertain and define its elementary principles, and all its dependencies and relations, and label the whole with letters of fire, and put it together again; then we shall understand it; then we shall never forget it; and then, everywhere and instanter, it will be ready for use. Now this can never be accomplished by lectures and oral instruction, from the simple consideration that the act of receiving knowledge, and the act of acquiring it by personal efforts, are entirely different in respect to mental exertion and thorough attainment. In the one case the mind is passive and records upon the

tablets of memory only a few fragments of what is said, soon to be effaced, and recovered only by recurring to imperfect notes; while in the other, the mind's best energies are employed in unlocking and dissecting the subject, and the mind's own eyesight in inspecting it; and there results the mind's accurate and imperishable knowledge of it. We do not mean that lectures are useless, or to be dispensed with; but they are to be only the important aids of original investigation. The young adventurer must have some stock in trade to begin with, some raw material for his mind to work upon; and on some plain subjects perhaps he has it. Let him experiment, then, first on the most familiar subject. Let him reconnoitre his own mind, and ascertain how much and what he knows, exactly, on the subject, and put it down in definite memoranda; and if they are the elementary points, it will be easy, by their light, to follow out their relations and dependencies, from centre to circumference; and if they are remote inferences and relations, it will be easy to follow them up till they disclose the elementary principle of which they are the satellites.

When this has been done, and all that his own ingenuity can disclose is found out, he may consult authors, and enlarge and connect his views by their aid. When called to investigate subjects which are beyond the sphere of his incipient knowledge, conversation and lectures may open the door of the temple, and put in the hand of the young adventurer the golden thread which may lead him out of darkness into open day. Mind, which has opened the fountains of knowledge, will thirst and drink and thirst and drink for ever. It is discipline which doubles its capacity, its economy of time, its energy of application, the amount of its acquisition, and the duration and amount of its active usefulness. Few minds uninitiated to the habit of investigation pass, without faltering, the meridian of life, or move on after it, but in the commonplace repetition of commonplace ideas: while to minds exercised by use to analyse and decompose and reconstruct the elementary order of things, the work is ever interesting, ever new, and the product ever fresh, original, and bright as the luminaries of heaven.

1301. Sleep and Study.—It is a common complaint—"When I want to study, I invariably fall asleep." There are many reasons why this is the case. A frequent cause of the sleepiness of the student over his book is the choice of an improper hour for reading, as for instance—after dinner, or at a late hour in the evening, after the physical energies of the body are exhausted. Smoking, and the drinking of spirituous liquors, also produce sleepiness. A still more common cause of drowsiness is the direction of the mind constantly to the same subject *in the same manner;* this is the mistake of diligent students, who forget that the mind, like the stomach, requires a mixed diet, and loses its appetite and power of digestion, unless the nutriment is varied, *at least in form.* The effort to study continuously, when the brain declares itself unfitted to receive more excitation in that particular manner, is decidedly injurious, and should not be persisted in. If it is necessary to pursue the *subject*, the *manner* of study should be varied. A friend may be requested to question the student, or he may "test his knowledge" by contriving questions, and looking out the answers in his works of reference, which should be read aloud. We know a man of very moderate abilities, but who has achieved a high position, and who attributes much of his success to a habit of extempore *speaking* in his room to an imaginary audience, when reading had become wearisome. The student often induces drowsiness by foolishly making his study, his table, his chair, and his habits, as luxurious as possible. We *never* sit in an easy chair, and we would ad-

vise every ambitious student invariably to eschew all such luxuries as lounging-chairs, thick table-cloths, elbow cushions, handsome reading-caps, and all varieties of book-rests. We know a *real* "study" at a glance, by the absence of all such things. The want of a proper supply of oxygen in the blood sent to the brain, is another fruitful cause of sleepiness in the student who shuts himself up in an ill-ventilated room, or sits down to study immediately after coming from the cold *condensed* air, which, at each inspiration, supplies him with more oxygen than the warm *expanded* atmosphere of a heated room. Too large or too small a supply of blood to the brain produces drowsiness; the former is the more frequent cause, but may be relieved by tying a damp towel round the head. A common mistake of the studious is to over-heat their rooms, and to sit near the fire, whereby their heads become heated, and the blood driven from the feet, which are chilled by the cold (and comparatively heavy) air which flows along the floor. A thermometer should be suspended in every study.

1302. Silvering Ivory.—To silver ivory fancy work, prepare a strong solution (a drachm to two ounces) of lunar caustic; protect such parts as are not required to be acted on by copal varnish; then immerse the ivory-work in the solution; when it becomes yellow, remove it to a glass vessel containing distilled water, and expose to the rays of the sun. In a short time it will become black in those parts that are not protected; it should then be removed from the water, wiped dry, and rubbed well with a piece of soft leather, when the design will appear on the ivory in a metallic state, and burnished; the varnish should then be removed. We particularly recommend the last process for such purposes as ornamenting tablets, paper-knives, etc.; marking crests on table knives, or, in fact, anything that requires ornament or cypher.

1303. Gilding Silver.—Clean the silver piece, by means of a brush and a little ammonia, until the surface is evenly bright and shows no tarnish. Take a small piece of gold and dissolve it in about four times its volume of metallic mercury, which will in a short time be accomplished and an amalgam form. Put a little of this amalgam on a piece of dry cloth, and rub the silver piece with it on all sides; then place it on a clean stone in a furnace, and heat to the beginning of redness. After cooling it must be cleaned again with a brush and a little cream of tartar, when it will be found beautifully and lastingly gilded.

1304. Horses' Collars.—It is very important to have a collar fit nicely and snugly to the shoulders of the horse. It enables him to work with a great deal more ease, and to apply a great deal more strength. It prevents galling and wounding, as the friction is avoided. The collar should be purchased of the proper size; just before putting it on the first time, immerse it in water, letting it remain about a minute, and immediately putting it on the horse, being careful to have the hames so adjusted at top and bottom as to fit the shoulder, and then put the horse to work. The collar, by being wet, will adapt itself to the shoulder, and should dry on the horse. When taken off it should be left in the same shape it occupied on the horse, and ever after you will have a snug fitting collar and no wounds.

1305. Horse-Shoeing.—Many horses are injured by carelessness, or improper management in shoeing. To learn how to fit a shoe accurately to the horse's foot, so that it shall properly protect the foot, and at the same time avoid the liability to injure it, is no mean acquisition. The smith, to conduct his business properly, should have an accurate knowledge of the anatomy, physiology, and pathology of the horse's foot, and then he will perform the operation of shoeing, not

merely as though he was nailing a piece of iron to a block of wood, but with all the care and nicety which the living structure requires. The feet of horses differ so much, that it requires great judgment and a thorough knowledge of their anatomical structure, to shoe each horse in a manner best calculated to promote the intentions of nature. Smiths generally pare the heel too much, or rather, do not pare the toe enough; the reason is, that it is so much harder to cut. When the horse stands upon the foot, the heel is so much lower than it should be, that the cords of the leg are strained; so, after a night's rest, the legs are stiff and sore, and the horse moves very awkwardly. This, sometimes, is attributed to founder, when in reality it is caused by nothing but bad shoeing. Frequently the toe is burnt off. This is also injurious; for, so far as the heat penetrates, the life of the hoof, and the only matter which gives toughness, are destroyed, and the hoof becomes brittle, and liable to crack. Care should be taken to see that the points of the nails are free from defects; for, sometimes, after the nail has entered the hoof it splits, and a part penetrates the quick, causing lameness.

1306. Smoke from GasLights.—It is pretty generally imagined that the smoking of ceilings is occasioned by impurity in the gas, whereas, in this case, there is no connexion between the deposition of soot and the quality of the gas. The evil arises either from the flame being raised so high that some of its forked points give out smoke, or more frequently from a careless mode of lighting. If, when lighting the lamps, the stopcock be opened suddenly, and a burst of gas be permitted to escape *before* the match be applied to light it, then a strong puff follows the lighting of each burner, and a cloud of black smoke rises to the ceiling. This, in many houses and shops, is repeated daily, and the inevitable consequence is a blackened ceiling. In some well-regulated houses the glasses are taken off and wiped every day, and before they are put on again the match is applied to the lip of the burner, and the stopcock cautiously opened, so that no more gas escapes than is sufficient to make a ring of blue flame; the glasses being put on quite straight, the stopcocks are gently turned, until the flames stand at three inches high. When this is done few chimney-glasses will be broken, and the ceilings will not be blackened for years.

1307 Offers of Marriage.—If the offer is made in writing you should reply to it as soon as possible; and having, in this case, none of the embarrassments of a personal interview you can make such a careful selection of words as will best convey your meaning. If the person is estimable, you should express your sense of his merit, and your gratitude for his preference, in strong terms; and put your refusal of his hand on the score of your not feeling for him that peculiar preference necessary to the union he seeks. This makes a refusal as little painful as possible, and soothes the feelings you are obliged to wound. The gentleman's letter should be returned in your reply, and your lips should be closed upon the subject for ever afterwards. It is his secret, and you have no right to tell it to any one; but if your parents are your confidential friends upon all other occasions, he will not blame you for telling them.

1308. Small Feet.—Good sense must tell that all attempts to render the feet cramped and small are injurious. A celebrated surgeon of the present day has said, that it is the rarest thing to find a foot the bones of which have not been injured by this practice. He says, the foot is constructed on the principle of a double arch, one lengthwise and the other crosswise; when the foot is raised, the ends of the arches contract; when it is on the ground, and the weight of the body rests upon it, they expand, and the arches become nearly flat; and un-

less there is in the shoe ample room for this expansion, some part of the delicate structure must be injured. The frequent complaints we hear of inflammation and pain in the joints are occasioned by shoes made too tight to allow this necessary play of the foot. All the misery of corns is produced in the same way; and much of the bad walking we see is referable to the same cause. Now this practice is doubly foolish, because it not only produces much bodily suffering, but it misses of the object for which that severe penalty is incurred. However pretty we may think little feet, there is no beauty in a large one crammed into a shoe too small for it. The moment the shoe looks stuffed, and the instep seems to be running over it, the size of the foot is more apparent than it would be in a larger shoe; the aim of the wearer is defeated, and the torture is borne in vain. Shoes that are too narrow make the foot look like something rolled up and stuffed into them; they destroy all form and comeliness and render the step tottering, as if the soles of the feet were round instead of flat.

1309. How to make a Fortune.—Take earnestly hold of life, as capacitated for and destined to a high and noble purpose. Study closely the mind's bent for labor or a profession. Adopt it early and pursue it steadily, never looking back to the turning furrow, but forward, to the new ground that ever remains to be broken. Means and ways are abundant to every man's success, if will and actions are rightly adapted to them. Our rich men and our great men have carved their paths to fortune, and by this internal principle—a principle that cannot fail to reward its votary, if it be resolutely pursued. To sigh or repine over the lack of inheritance is unmanly. Every man should strive to be a creator instead of an inheritor. He should bequeath instead of borrow. The human race, in this respect, want dignity and discipline. They prefer to wield the sword of valorous forefathers, to forging their own weapons. This is a mean and ignoble spirit. Let every man be conscious of the power in him, and the Providence over him, and fight his own battles with his own good lance. Let him feel that it is better to earn a crust than to inherit coffers of gold. This spirit of self-nobility once learned, and every man will discover within himself, under God, the elements and capacities of wealth. He will be rich, inestimably rich in self-resources, and can lift his face proudly to meet the noblest among men.

1310. Washing Colored Articles.—The colors of dresses, etc., may be preserved by using water that is only milk-warm; making a lather with white soap, *before* you put in the dress, instead of rubbing it on the material; and stirring into a first and second tub of water a large table-spoonful of oxgall. The gall can be obtained from the butcher, and a bottle of it should always be kept in every house. No colored articles should be allowed to remain long in the water. They must be washed fast, and then rinsed through two cold waters. Into each rinsing water stir a teaspoonful of vinegar, or a little alum, which will help to brighten the colors; and after rinsing, hang them out immediately. When *ironing-dry* (or still a little damp) bring them in; have irons ready heated, and iron them at once, as it injures the colors to allow them to remain damp too long, or to sprinkle and roll them up in a cover for ironing next day. If they cannot be conveniently ironed immediately, let them hang till they are *quite* dry, and then damp and fold them on the *following day*, a quarter of an hour before ironing. The best way is not to do colored dresses on the day of the general wash, but to give them a morning by themselves. They should only be undertaken in clear bright weather. If allowed to freeze, the colors will be irreparably injured. We need scarcely

say that no colored articles should ever be boiled or scalded. If you get from a shop a slip for testing the durability of colors, give it a fair trial by washing it as above; afterwards pinning it to the edge of a towel, and hanging it to dry. Some colors (especially pinks and light greens), though they may stand perfectly well in washing, will change as soon as a warm iron is applied to them; the pink turning purplish, and the green bluish. No colored article should be smoothed with a *hot* iron.

1311. How to lay out Flower-beds.—Most persons, amateurs especially, find considerable difficulty in marking out irregularly shaped beds, such as are employed in what is termed the picturesque style of gardening. Let them employ a thick rope, which, by being laid upon the ground, can readily be coiled in any direction, until the desired shape is obtained. This would, indeed, be a much better mode than the usual one of staking out the outline; with the rope, the eye is enabled to perceive the whole form of the bed at once, and consequently to detect a fault and remedy it immediately, before any part of it has been cut out, thus economizing time and labor.

1312. The first Balloon Voyage.—The idea of constructing a machine which would enable us to rise into, and sail through the air, seems often to have occupied the attention of mankind, even from remote times; but it was never realized until within the last eighty or ninety years. The principles on which a balloon could be constructed had long been known to men of science, but to reduce these principles to complete effect was still an enterprise of the most dazzling kind. This triumph over matter was at length achieved by the skill and perseverance of Stephen and Joseph Montgolfier, sons of the proprietor of an extensive paper manufactory at Annonay The two brothers had long contemplated the project, and after some experiments, the first public ascent of a balloon was exhibited at their native town, on the fifth of June, 1783, amidst a very large concourse of spectators. They afterwards constructed a balloon on a larger scale at Paris. It reached the height of 1500 feet, where it appeared for a while suspended; but in eight minutes dropped to the ground, two miles from Paris. A sheep, a cock, and a duck which had been put into the basket, the first animals ever carried up into the air, were found perfectly safe and unhurt by the journey; the sheep was even feeding at perfect ease. The first aerial voyage ever made by man, was on the 21st of November, 1783, when Pilatre de Rozier, a youthful naturalist of great promise, and full of ardor and courage, accompanied by the Marquis d'Arlandes, a major of infantry, who had volunteered to accompany him, ascended from the château of Muette, belonging to the court of the dauphin. About two o'clock the machine was launched, and mounted with a steady and majestic pace. Wonder mingled with anxiety was depicted in every countenance; but when, from their lofty station in the sky, the navigators calmly waved their hats, and saluted the spectators below, a general shout of acclamation burst forth from all sides. This balloon soared to an elevation of 3000 feet, and traversed by a circuitous route the whole of Paris, whose gay inhabitants were all absorbed in admiration and amazement. The daring aeronauts, after a journey of twenty-four or twenty-five minutes, in which they had described a track of six miles, safely alighted beyond the boulevards. Such was the prosperous and successful issue of the first aerial voyage ever performed by man.

It was a conquest of science which all the world could understand, and it flattered extremely the national vanity of the French, who hailed its splendid progress, and enjoyed the honor of their triumph.

1313. Taxidermy, Or the Art of Stuffing Birds and Quadrupeds.—The art of bird-stuffing, which in the hands of the naturalist, becomes a very interesting pursuit, may be readily performed by adhering to the following instructions. In the first place, the manipulator must buy a medical student's dissecting-case, that will contain half-a-dozen knives of the kind he wants, two pairs of sharp pointed scissors, a pair of forceps, and most likely some chain-hooks and a blow-pipe. These last two items he may lay aside; but all the rest are just the things he wants, and buying them secondhand they will cost him no more than a couple of knives and one pair of scissors would if purchased new. He will also require a pair of round and a pair of flat pliers for his wire; a pair of cutting pliers, which, as they are to be used both for wire and for bones, should be pointed ones; a three-cornered file, wire of various sizes, plain and colored glass eyes, some soft thread, some fine twine, tow, cotton-wool, preservation powder (see 1315), arsenical soap (see 1314), with brush for laying on the same. The bird-stuffer should then get the tools and preparations ready, and shoot an old bird. Take a stick of the required size, and make two holes with an awl the natural distance apart for the bird's legs; pass the leg-wires through the holes, and twist them firmly round the stick; now fasten the end of the stick firm, either in a vice or nailed to a block; press the legs a little backwards, making the feet the pivot; then put one finger just below the knee-joints on the front of the legs and press the body forwards, making the knees the pivots, until you have the body in a natural position as regards the legs. Now take hold of the body with one hand, and with the other press back the neck-wire to rather more than at right angles with the body; then take the middle of the neck-wire between your fingers, and with the other hand press the free extremity that projects beyond the head, and bend down the head until you have the natural form.

To place the wings, supposing the bird to be at rest: cut two pieces of wire two or three inches long or more, according to the size of the bird, and point one end; take the wing in your hand, and pass the pointed end of the wire through the last joint, or rather on the free side of the last joint; now lift the wing with one hand, and, with one finger of the other, push the first bone, part of which you cut off in skinning the bird, well up under the skin of the back; then bring the wing down to the side, and push the wire firmly into the body. Open the mouth, and take out the wool with which the eye sockets are filled; then stuff the neck, through the mouth, until the proper size; place a little wool in the eye-socket, on the further, upper, and under side. Take with the forceps one of the glass eyes by the little piece of wire which projects from one side, and insert carefully into the socket, making it project rather too much through the lids. Place a little more wool behind the glass eye, and fill up the opening into the eye-sockets and the mouth with it, and tie the beak together. If the eyes now project too much, press them gently back with the finger. Take two little thin strips of wood, drive a strong pin through the centre of one piece nearly to the head; place this under the tail near its base, and pass the point of the pin between the two centre quills; place the centre of the other strip of wood on the point of the pin, and press it down until the tail is held firmly between the two pieces of wood, when you can spread it to the required extent. With a smooth-pointed wire (a knitting-needle will do), arrange every feather in its place, and then wind soft cotton over the whole body to keep the feathers in place, and put the bird in a freely-ventilated room to dry.

In ducks, hens, etc., the neck is so long and narrow that the skin cannot

be drawn over the head with these birds, therefore, skin the neck as high as you can and cut it off; make a cut through the skin from the angle of the jaw to the bottom of the piece of neck still attached to the head, and remove the neck, brain, tongue, etc., through the opening. Most bird-stuffers, and every beginner makes the opening in the neck on the side next the back of the case the bird is to be placed in; but, after very little practice, you may do this so neatly that it is not of much consequence on which side you do it. Large animals should be carefully skinned, with the horns, skull, tail, hoofs, etc., entire. Then rub the inside of the skin thoroughly with a mixture of salt, pepper, and alum, and hang up to dry. Large birds may be treated in the same way, and in all cases the cavity of the skull may be filled with fire clay, which has been worked up with water until it has the consistence of putty.

1314. Arsenical Soap.—For the preparation of arsenical soap take powdered arsenic, 2 ounces; camphor, 5 ounces; white soap, 2 ounces; salt of tartar, 6 drachms; powdered lime, 2 drachms. The soap is to be cut in very thin slices, and put in a crucible with a small quantity of water, over a gentle fire, and frequently stirred with a piece of wood. When properly melted, the lime and salts of tartar must be added; the arsenic is then to be stirred in, and lastly the champor (reduced to powder with a little spirits of wine) is to be mixed in, off the fire.

Or, it may be made by mixing 100 parts of white soap; 100 of arsenious acid; 36 of carbonate of potash; 15 of camphor; and 12 of quick lime. The soap should be scraped, and melted with a little water at a gentle heat; then add the potash and lime, mixing them well; after which, the arsenious acid should be gradually added. The camphor should be reduced to powder, by rubbing it in a mortar with a little alcohol, and when the soap is cold, it should be mixed with it. Both these preparations should be kept in well-closed jars. In using the soap, a portion of it should be dissolved in a little water, and this applied by means of a brush to the flesh-side of the skin.

1315. Preservative Powder.—For the preservative powder take—powdered arsenic, 4 ounces; burnt alum, 4 ounces; tanner's bark, 8 ounces; mix, reduce to powder, and pass through a fine sieve: then add camphor (reduced to powder with spirits of wine), 2 ounces; musk, 30 grains: keep in a well stoppered bottle.

1316. Starvation.—Though this term implies death from either hunger or cold, it is in the former sense only that it is now popularly understood. As the human body can resist the ravages of hunger and thirst for a considerable time, the decay of vital energy is gradual, and always accompanied by a corresponding waste of the physical frame; consequently, the body of a person who has lost his life from a deprivation of sustenance, always bears upon it such characteristic appearances of gaunt emaciation, attenuated limbs, sunken eyes and hollow temples, as leaves no doubt on the mind of the beholder as to the cause of death. In cases where, from long deprivation from food, a person is reduced to a state that might have eventuated in dissolution, great care is needed in administering nourishment, which in all such cases must be looked on as a medicine, and given in small and guarded doses; for the greater has been the exhaustion, the more prone is the patient to suffer from the reaction, that, sometimes, from a state of powerless prostration, rouses in a few minutes to delirious fury; the patient often sinking under the means necessary to pull down the feverish excitement induced by the means used to save him. Thin gruel, or mutton broth, slightly thickened with crumbs of bread, given in a few tablespoonfuls at a time, and repeated every ten minutes, is the best restorative and nourishment that can be given to a

person long debarred from food. Even this must be withheld when the face flushes, and the pulse rises suddenly. Conjointly with the above form of nourishment, hot water must be applied to the feet, and sometimes a hot fomentation is necessary to the stomach.

1317. Window Painting.—The windows of a house may be very appropriately decorated, with the aid of a recent invention termed *diaphanie*, which is a beautiful and inexpensive art, combining economy with perfect results. In carrying out this process, a peculiar kind of paper is rendered perfectly transparent, upon which designs are painted in glass colors, which will not change with the light. The paper is applied to the glass with a clear white varnish, and, when dry, a preparation is finally applied, which increases the transparency, and adds tenfold brilliancy to the effect. There is another design, painted in imitation of half-light; this is used principally for a ground, covering the whole surface of the glass, within which (the necessary spaces having been cut out before it is stuck on the glass) are placed medallion centres of Watteau figures, perfectly transparent, which derive increased brilliancy from the semi-transparency of the surrounding ground. This is by far the cheapest method, though involving extra trouble. To ascertain the number of designs required, measure the glass carefully, and then calculate how many sheets of the transparent designs it will take. The sheets are arranged so that they can be joined together continuously, or cut to any size or shape. Choose a fine day for the operation, as the glass should be perfectly dry and unaffected by the humidity of the atmosphere. If possible, it is more convenient to work upon the glass before it is fixed in the frame. If you are operating on a piece of unattached glass, lay it on a flat table, or marble slab, over which must be previously laid a piece of baize, or cloth, to keep the glass steady.

The glass being thus fixed, clean and polish the surface on which you intend to operate (on windows this is the inner side), then with the brush lay on it a thick and even coat of the prepared varnish; let this dry for an hour, more or less, according to the state of the atmosphere and the thickness of the coat of varnish. Meantime, cut out and trim the designs carefully to fit the glass; then lay on a piece of paper, face downwards, and damp the back of it with a sponge applied several times to equalize the moisture. In this operation, arrange the time, so that the designs may be left finally to dry for a quarter of an hour before application to the glass, the varnish on which will have become sticky, and in a proper state to receive the designs. Apply the painted side next to the glass without pressure; endeavor to let the sheet fall perfectly level and smooth on the glass, so that you may avoid leaving creases, which would spoil the whole. Take now your palette, lay it flat on the design, and press out all the air bubbles, commencing in the centre, and working them out from the sides. An ivory stick will be found useful in removing the creases. The work is now to be left to dry, and, after twenty-four hours, apply a slight coat of *liqueur diaphanie*, leaving it for another day, when, if dry, apply a second coat of the same kind as the first, which must be left undisturbed for several days: finally, apply a coat of varnish over all. If these directions are carefully followed, the glass will not be affected, either by time or the variations of weather; and it can be washed in the same manner as ordinary stained glass, to which in some respects it is superior. The materials used in the practice of this art may be obtained of any artists' colorman.

1318. How People Take Cold.—The time for taking cold is after your exercise; the place is in your own house, or office, or counting-room. It is not the act of exercise which

gives the cold, but it is the getting cool too quick after exercising. For example, you walk very fast to get to the railroad station, or to the ferry, or to catch an omnibus, or to make up time for an appointment; your mind being ahead of you, the body makes an over effort to keep up with it; and when you get to the desired spot, you raise your hat and find yourself in a perspiration. You take a seat, and feeling quite comfortable as to temperature, you begin to talk with a friend, or to read a newspaper; and before you are aware of it, you experience a sensation of chillness, and the thing is done. You look around to see where the cold comes from, and find a window open near you, or a door, or that you have taken a seat at the forward part of the car, and as it is moving against the wind a strong draught is made through the crevices. Or, it may be, you meet a friend at a street corner, who wanted a loan and was quite complimentary, almost loving; you did not like to be rude in the delivery of a two-lettered monosyllable, and while you were contriving to be truthful, polite and safe, all at the same time, on comes the chilly feeling from a raw wind at the street corner, or the slush of mud and water in which, for the first time, you noticed yourself standing.

After any kind of exercise, do not stand a moment at a street corner for any body or any thing; nor at an open door or window. When you have been exercising in any way whatever, winter or summer, go home at once, or to some sheltered place; and however warm the room may seem to be, do not at once pull off your hat and cloak, but wait some five minutes or more, and lay aside one at a time; thus acting, a cold is impossible. Notice a moment; when you return from a brisk walk, and enter a warm room, raise your hat, and the forehead will be moist; let the hat remain a few moments and feel the forehead again, and it will be dry, showing that the room is actually cooler than your body, and that, with your outdoor clothing on, you have cooled off full soon. Among the severest colds known, were those resulting from sitting down to a meal in a cool room after a walk; or being engaged in writing, and having let the fire go out, their first admonition of it was that creeping chillness, which is the ordinary forerunner of severe cold. Persons have often lost their lives by writing or remaining in a room where there was no fire, although the weather outside was rather uncomfortable. Sleeping in rooms long unused has destroyed the life of many a visitor and friend; our splendid parlors, and our nice "spare rooms," help to enrich many a doctor. Cold sepulchral parlors bring diseases, not only to visitors but to the visited; for coming in from domestic occupations, or from the hurry of dressing, the heat of the body is higher than natural, and having no cloak or hat on in going in to meet a visitor, a chill and cold is frequently the result.

1319. Diamonds.—The diamond is pure carbon, crystallized; and is the hardest of all known substances. When perfectly pure, it is as transparent as a drop of the purest water, in which state it is known as "a diamond of the first water;" and in proportion as it falls short of this perfection it is said to be of the second, third, or fourth water, till it becomes a colored one. Colored diamonds are generally yellow, blue, green, and red or rose color. When a diamond has a decided color, it is called a fancy stone, and will bring a most exorbitant price. A stone of 5 grains, of a brillant emerald-green, has been known to sell for $1600. The diamond is found in Hindostan, Brazil, Sumatra, Borneo, the Ural Mountains, and occasionally in the United States; but by far the largest quantity are obtained from the Brazils. The rough diamonds are assorted by experienced persons, and the various qualities separated; but the most experienced judges are unable to determine with certainty what any stone will be

when polished. The process of cutting and polishing is effected by steel plates, covered with diamond dust and oil, which revolve two or three thousand times per minute; the gem being imbedded in a mass of lead is pressed upon the plates by means of machinery. This branch of industry is carried on extensively in Amsterdam, Holland; it being estimated that fifteen-sixteenths of all the diamonds found are now cut there. The largest mills in Amsterdam are those of Mr. Coster, who employs from 400 to 500 workmen. To this firm was entrusted the re-cutting of the celebrated Koh-i-Noor diamond.

When diamonds are cut and polished they are known to jewelers as single-cut brilliants, double-cut brilliants, rose and table diamonds. The double-cut brilliant is the most common form at the present day. The upper or flat part is called the *table*, and from thence to the *girdle* or centre edge, and broadest part of the stone, are facets, called star-facets; from the girdle to the lower or pointed part, called the *culet*, are facets, called skill facets. These facets meet in the middle of each side of the table and girdle, and also at the corners, forming regular lozenges on the four upper sides or corners of the stone. The triangular facets on the under side, from the culet to the girdle, must be half as deep again as the upper or star facets. The stone should have the following proportions—from the table to the girdle, one-third; and from the girdle to the culet, two-thirds of the total thickness; the diameter of the table should be four-ninths of that of the girdle, and the culet be one-sixth the size of the table. The girdle of the stone should be of the same dimensions as the thickness or depth; and if well cut, should have a thin edge. In the single-cut brilliant the table is square, and there are sixteen triangular facets touching it on the girdle, above; the under part has twelve triangular facets, touching the girdle, and underneath them eight long facets, making altogether thirty-eight facets. The "table diamond" consists simply of a table, a culet, and from eight to sixteen facets. The "Rose diamond" has the under part quite flat, and the upper terminates in a point. The work on the stone consists of triangles, whose apices meet at the point, or crown of the rose, and which are called the star facets. The base of these touch another row of triangles reversed, and the apices of these under triangles touch the girdle of the stone; leaving spaces which are each cut into two facets. To be well proportioned, the depth of the stone must be half the diameter of its under surface; the diameter of the crown, three-fifths of the diameter of the base, and the perpendicular, from the base to the crown, three-fifths of the depth of the stone.

1320. Large Diamonds.—The following account of large diamonds will doubtless prove interesting to some of our readers:

The "Mattam Diamond" belongs to the Rajah of Mattam, in Borneo. It is of the first water, weighs 367 carats, and is of a pear-shaped form. It was found about the year 1760 at Landak in Borneo, and has caused a sanguinary war. The Dutch governor of Batavia offered two gunboats with stores and ammunition complete, and $250,000 for it; but the offer was refused.

The "Koh-i-Noor Diamond" was taken from the treasury of Delhi, at the conquest of that city by Ala-ed-Din; thence, in 1526, it came into the possession of the Sultan Baber, of the Mogul dynasty. This prince estimated its value at a sum equal to that required for the maintenance of the whole world for one day. Nadir Shah, the conqueror of India, obtained possession of this stone, and from the hands of his descendants it passed into the possession of Aehmed Shah. His son, Shah Sujah, was in turn forced to deliver it into the hands of Runjeet Singh. After the capture of Lahore, at the time of the Sikh mutiny, it fell

into the hands of the British troops, who presented it to Her Majesty Queen Victoria, on the 3d of June 1850. It now forms part of the crown jewels of England. The jewel had, however, been reduced in cutting, from 793 carats, to 186 carats, the weight of it when presented to the Queen. A recutting by Mr. Coster, of Amsterdam, has greatly improved its brilliancy, and it now weighs 103 carats. It has been valued at from three to ten millions of dollars.

The "Orloff Diamond" is set in the sceptre of the Czars of Russia, and weighs 194¼ carats. This diamond is supposed to have formed one of the eyes of an idol in a Brahmin temple; but be this at it may, it is certain that it was stolen by a Frenchman, who sold it in Malabar for $14,000. It was purchased by the Armenian Schaffras, who sold it to the Empress Catharine II., in the year 1774, for 450,000 roubles, a pension of 20,000 roubles, and a patent of nobility. It is now, as we have said, in the Russian Imperial sceptre. The value of this diamond has been estimated at twenty millions of dollars.

The "Regent or Pitt Diamond" forms part of the crown jewels of France. It was bought by the Duke of Orleans, then Regent of France, of Pitt, the governor of Fort St. George, in the year 1717, for $675,000. Pitt purchased this stone in Golconda, of a Hindoo merchant. When rough this diamond weighed 410 carats. Its cutting cost $17,500, and occupied two years. It now weighs 136¾ carats. The Emperor Napoleon I. wore it in the pommel of his sword. It is valued at from three to five millions of dollars.

The "Sancy Diamond" is almond shaped, and weighs 53½ carats. The stone was found on the body of the Duke of Burgundy, and was afterwards, in 1479, bought by the King of Portugal. In 1489 he sold it to Nicholas de Barly—Baron de Sancy—from whom it derives its name. Sancy sent it to the king as a present, by the hand of a servant, who, being attacked by robbers, swallowed it; after the servant's death the stone was found in his stomach. It finally came into the hands of James II. of England, who sold it to Louis XIV., for $125,000. During the French Revolution this diamond disappeared, and some years afterwards was sold to Prince Paul Demidoff.

The "Star of the South" diamond, was found in 1853 at Bogagem by a negro. When rough it weighed 254½ carats, but since cutting only 125 carats. It is of an oval form, and was cut by, and is the property of Mr. Coster of Amsterdam.

The "Florentine Brilliant" belongs to the Emperor of Austria. It weighs 139½ carats; is of a yellowish color, and is covered with facets like a rose diamond, being pointed both at top and bottom. The stone is supposed to be one of those lost by Charles the Bold, at the battle of Granson. It was found by a soldier, who sold it to a priest for one florin. It afterwards came into the possession of Pope Julius II., who give it to the then Emperor of Austria.

Among the other large diamonds known, may be mentioned, "The Cumberland," of 32 carats; "the Shah," of 86 carats; the "Eugénie Brilliant," of 51 carats; the "Pasha of Egypt," of 41 carats; the "Nassack," of 78½ carats; the "Pigott," of 82¼ carats; the "Hope," of 44½ carats; a brilliant red diamond of 10 carats, now in the Russian treasury; a green diamond of most remarkable beauty, of 48½ carats; and a diamond in the crown of Portugal of 138½ carats.

1321. The Conservatory.—Among the various appendages which it is desirable that a house should possess, few are more important than the conservatory, which, when appropriately placed, may be regarded as an extension of the drawing-room; or at least, if it is in the vicinity of the house, and properly connected with it, it is admirably adapted as a place for

walking and recreation in all kinds of weather. If possible, it should be made contiguous to some one of the public rooms or the corridor, and should be easily accessible by the family without their leaving the house, or at most passing along a glazed passage or veranda. When the conservatory enters into the original arrangements, one or the other of these expedients may generally be practicable; but if it is entirely an after-thought, it sometimes happens that a suitable site cannot be obtained. It has wants of its own. It requires free air and open sunshine, and cannot stand on the northern side of the house. There is nothing, however, in itself to prevent it occupying such a site, on any of the remaining three sides that will harmonize with the other buildings of the house, or will suit the internal arrangements and communications. In comparatively humble and economical residences, the conservatory may consist of a number of rectangular sashes, connected and supported by means of light iron rafters.

In the beginning of summer the sashes may be removed and applied to other purpose in horticulture. The light iron framework may either be removed, or can remain and be disguised by annual creepers, or by vines of the narrow-leaved sorts. The internal arrangements of a conservatory should be simple, its passages of ample width, and its whole appliances such as to permit a free exhibition of the plants without the chance of their being crushed. The shelving and stages, when introduced, should be kept low, so that the plants may be conveniently situated for the view. Elaborate decoration in this department has a tendency to detract from the effect of the plants. Fine mouldings and carvings harbor insects, collect dust, and being difficult to clean, contract an untidy appearance in a very short time. The heating process is generally best accomplished by hot water pipes, and the boiler may be placed at a distance of more than a hundred feet, without any material disadvantage, provided the pipes are laid underground in a dry and double-cased drain, to prevent the escape of heat from the water in its passage to the conservatory. Wood and iron are generally employed for the framework of conservatories. Stone pilasters of slender proportions may be introduced, to give a somewhat architectural air to the structure. The glass used for the sashes should be good, and free from impurities and irregularities; it should also take the form of large squares, or in panes, long at least, if not broad, contracted squares of glass, with a multitude of overlaps, imparting a mean and contemptible appearance to the whole structure.

1322. The Language of Flowers.—The language of Flora is by no means a modern invention; the hieroglyphics of the ancient Egyptians abound in floral symbols, and the Chinese have an alphabet composed entirely of flowers and plants. From the earliest ages flowers have been associated with the tender sentiments of the heart:

"By them the lover tells his tale;
They can his hopes, his fears express;
The maid, when looks or words do fail,
Can thus a kind return confess."

FLOWERS.	SENTIMENTS.
Acacia Rose	Friendship.
Althæa	Consumed by love.
Alyssum	Worth beyond beauty.
Anemone	Expectation.
Angelica	Inspiration.
Apple Blossom	Preference.
Arbor Vitæ.	Unchanging friendship.
Bachelor's Button	Hope in love.
Balm	Sympathy.
Balm of Gilead	Healing.
Balsam	Impatience.
Bay-Leaf	I change but in dying.
Beech	Prosperity.
Bell Flower	Gratitude.
Box	Constancy.
Bramble	Envy.
Buttercup	Riches.
Calla Lily	Feminine beauty.
Camellia	Pity.
Candytuft	Indifference.

FLOWERS.	SENTIMENTS.
Canterbury Bell	Gratitude.
Cape Jasmine Gardenia	Ecstasy.
Cardinal Flower	Distinction.
Carnation, Yellow	Disdain.
China Aster	I will think of it.
China Pink	Aversion.
Chrysanthemum, Rose	I love.
Clematis	Artifice.
Clover, Red	Industry.
Cockscomb	Affectation.
Coltsfoot	Justice shall be done you.
Columbine	Folly.
Columbine Purple	Resolved to win.
Columbine Red	Anxious.
Convolvulus	Dead hope.
Corehorus	Impatience of absence.
Coreopsis	Love at first sight.
Cowslip	Pensiveness.
Crocus	Cheerfulness.
Crown Imperial	Majesty.
Cypress	Mourning.
Cypress and Marigold	Despair.
Daffodil	Chivalry.
Dahlia	Forever thine.
Daisy, White	Innocence.
Daisy, Wild	I will think of it.
Dandelion	Coquetry.
Dead Leaves	Sadness.
Elder	Compassion.
Elm, American	Patriotism.
Endive	Frugality.
Eupatorium	Delay.
Evening Primrose	Inconstancy.
Evergreen	Poverty.
Fir Tree	Elevation.
Flax	I feel your kindness.
Forget-me-not	True love.
Foxglove	Insincerity.
Fuschia	Taste.
Geranium, Apple	Present preference.
Geranium, Nutmeg	I expect a meeting.
Geranium, Rose	Preference.
Gillyflower	Lasting beauty.
Hawthorn	Hope.
Hazel	Reconciliation.
Heart's Ease	Think of me.
Heliotrope	I love you; Devotion.
Holly	Foresight.
Hollyhock	Fruitfulness.
Hollyhock, White	Female ambition.
Honeysuckle	Bond of love.
Hoya (Wax Plant)	Sculpture.
Hyacinth	Jealousy.
Hyacinth, Blue	Constancy.
Hyacinth, Purple	Sorrow.
Hydrangea	Heartlessness.
Ivy	Friendship; Matrimony.

FLOWERS.	SENTIMENTS.
Jessamine, White	Amiability.
Jessamine, Yellow	Grace; Elegance.
Jonquil	I desire a return of love.
Kalmia (Mountain Laurel)	Treachery.
Laburnum	Pensive beauty.
Ladies' Slipper	Capricious beauty.
Lantana	Rigor.
Larch	Boldness.
Larkspur	Fickleness.
Laurel	Glory.
Laurustinus	I die if neglected.
Lavender	Distrust.
Lemon Blossom	Discretion.
Lilac	First emotion of love.
Lilac, White	Youth.
Lily	Purity; Modesty.
Lily, Day	Coquetry.
Lily, Water	Eloquence.
Lily, Yellow	Falsehood.
Live Oak	Liberty.
Locust	Love beyond the grave.
Magnolia, Swamp	Perseveranee.
Mallow	Sweetness; Mildness.
Marigold	Cruelty.
Marigold, African	Vulgar minded.
Marigold, French	Jealousy.
Marjoram	Blushes.
Mimosa	Sensitiveness.
Mint	Virtue.
Mistletoe	I surmount all difficulties.
Mock Orange (Syringa)	Counterfeit.
Moss	Maternal love.
Motherwort	Secret love.
Mouse-ear Chickweed	Simplicity.
Myrtle	Love.
Narcissus	Egotism.
Nettle	Cruelty; Slander.
Nightshade	Bitter; Truth.
Oleander	Beware.
Orange Flower	Chastity.
Orchis	Beauty.
Pansy	Think of me.
Parsley	Entertainment.
Passion Flower	Pious zeal; Ardor.
Peach Blossom	This heart is thine.
Peony	Anger.
Pennyroyal	Flee away.
Phlox	Our souls are united.
Pine-Apple	You are perfect.
Pine, Spruce	Farewell.
Pink	Pure affection.
Pink, Double Red	Pure, ardent love.
Pink, Mountain	You are aspiring.
Pink, Variegated	Refusal.
Pink, White	You are fair.
Pink, Yellow	Disdain.
Polyanthus	Confidence.

FLOWERS.	SENTIMENTS.
Poppy	Consolation of sleep.
Poppy, White	Sleep of the heart.
Pomegranate	Foolishness.
Pomegranate Flower	Elegance.
Primrose	Early youth.
Primrose, evening	Inconstancy.
Privet	Mildness.
Rose	Beauty.
Rose, Bridal	Happy love.
Rose, Burgundy	Unconscious beauty.
Rose, Cabbage	Ambassador of love.
Rose, Carolina	Love is dangerous.
Rose, China	Grace.
Rose, Damask	Freshness.
Rose, Hundred-leaved	Pride.
Rose, Moss	Superior merit.
Rose, Moss bud	Confession of love.
Rose, Tea	Always lovely.
Rose, White	I am worthy of you.
Rose, Wild	Simplicity.
Rose, Yellow	Decrease of love.
Roses, Garland of	Reward of Virtue.
Rosebud	Young girl.
Saffron	Excess is dangerous.
Sage	Esteem.
Sensitive-plant	Timidity.
Snapdragon	Presumption.
Snowdrop	Consolation.
Spearmint	Warm feelings.
Star of Bethlehem	Reconciliation.
Sumac	Splendor.
Sunflower, Tall	Pride.
Sweet William	Finesse.
Syeamore	Curiosity.
Tansy	I declare against you.
Thyme	Activity.
Touch-me-not Balsam	Impatience.
Truffle	Surprise.
Trumpet Flower	Separation.
Tuberose	Dangerous pleasures.
Tulip	Declaration of love.
Tulip Tree	Rural Happiness.
Tulip, Variegated	Beautiful eyes.
Tulip, Yellow	Hopeless love.
Turnip	Charity.
Verbena	Sensibility.
Vine	Intoxication.
Violet, Blue	Love.
Violet, White	Modesty.
Virgin's Bower	Filial love.
Wall Flower	Fidelity.
Walnut	Stratagem.
Weeping Willow	Forsaken.
Wheat	Prosperity.
Wood-Sorrel	Joy.
Wormwood	Absence.
Yew	Sorrow.

1323. Directions for Pruning Vines.—1st. In pruning, always cut upwards and in a sloping direction. 2d. Always leave an inch of blank wood beyond a terminal bud, and let the cut be on the opposite side of the bud. 3d. Prune so as to leave as few wounds as possible, and let the surface of every cut be perfectly smooth. 4th. In cutting out an old branch, prune it even with the parent limb, that the wound may heal quickly. 5th. Prune so as to obtain the quantity of fruit desired on the smallest number of shoots possible. 6th. Never prune in frosty weather, nor when a frost is expected. 7th. Never prune in the months of March, April, or May; pruning in either these months causes bleeding, and occasions thereby a wasteful and injurious expenditure of sap. 8th. Let the general autumnal pruning take place as soon after the 1st of October as the gathering of the fruit will permit. Lastly. Use a pruning-knife of the best description, and let it be, if possible, as sharp as a razor.

1324. Caoutchouc (*cow-chook*)—India rubber. The article so universally known as India rubber is a concrete, elastic gum, of a peculiar character, obtained in a liquid form from transverse incisions made in the bark of the Caoutchouc, or Syringe Tree,—a native of Guiana, Quito, Cayenne, and other parts of South America,—and also of several varieties of Asiatic trees. The tree that yields the finest juice, the *Hævea caoutchouc*, is one of the most magnificent objects of American forest scenery, and only ranks second in beauty to the banian, or Indian fig. The tree reaches a height of nearly 100 feet, and can be seen for miles, its lofty crown and spreading branches making it a most conspicuous feature in the landscape. Immediately below the incision, a deep hole is scooped out of the earth, in which a large plantain leaf, folded up in the shape of a rude cup or basin, is placed, to receive the yellowish juice which

exudes and drops from the incision, at first flowing freely, but after two or three days it suddenly ceases, the last exudation forming a cutiele over the wound, and effeetually bloeking up the drain. The juice, collected when only partially hardened, is spread out on moulds, and exposed to the sun for a short time, and hung over smoke till quite dry, when it is cut into masses and exported in the forms in which we see it in the market. Caoutchouc is soluble in ether, some of the essential oils, especially that of sassafras, boiling turpentine, and naphtha. Though the Indians had long been in the habit of making boots, shoes, and cloth of it, it is only of late years that the value of this article has been properly realized by the discovery of a solvent for the gum which does not injure the elasticity of the article, a property that forms the great value of India rubber in a manufacturing sense. It now enters into the formation of some of the most useful as well as ornamental articles of domestic application.

1325. To Clean Furs.—Strip the fur articles of their stuffing and binding, and lay them as nearly as possible in a flat position. They must then be subjected to a very brisk brushing, with a stiff clothes-brush; after this, any moth-eaten parts must be cut out, and neatly replaced by new bits of fur to match. Sable, chinchilla, squirrel, fitch, etc., should be treated as follows: —Warm a quantity of new bran in a pan, taking eare that it does not burn, to prevent which it must be aetively stirred. When well warmed, rub it thoroughly into the fur with the hand. Repeat this two or three times: then shake the fur, and give it another sharp brushing until free from dust. White furs, ermine, ete., may be cleaned as follows:—Lay the fur on a table, and rub it well with bran made moist with warm water; rub until quite dry, and afterwards with dry bran. The wet bran should be put on with flannel, and the dry with a piece of book muslin. The light furs, in addition to the above, should be well rubbed with magnesia, or a piece of book muslin, after the bran process. Furs are usually much improved by stretching, which may be managed as follows: to a pint of soft water add three ounces of salt, dissolve; with this solution, sponge the inside of the skin (taking care not to wet the fur) until it becomes thoroughly saturated; then lay it carefully on a board with the fur side downwards, in its natural position; then stretch as much as it will bear, and to the required shape, and fasten with small tacks. The drying may be aeeelerated by placing the skin a little distance from the fire or stove.

1326. Preservation of Furs.—While in use, furs should be occasionally combed. When not wanted, dry them first, then let them cool, and mix among them bitter apples from the druggists, in small muslin bags, sewing them in several folds of linen, carefully turned in at the edges, and kept from damp. Camphor or pepper used in the same manner will have a similar effect.

1327. Selection and Management of Bees.—The person who intends keeping bees should purchase a proper number of hives either at the early or latter part of the year. The hives should be full of combs and well stored with bees. The purchaser should examine the combs, in order to know the age of the hives. The combs of the current season are white, those of the former year are of a darkish yellow; the latter should be rejected, because old hives are most liable to vermin and other accidents. The summer is an improper time for buying bees, because the heat of the weather softens the wax, and thereby renders the combs liable to break, if they are not very well secured. The honey, too, being then thinner than at other times, is more apt to run out of the cells; which is attended with the double disadvantage of the loss of the honey and the daubing of the bees, whereby

many of them may be destroyed. The management of bees according to the exigencies of the season, may be gleaned from the following *Monthly Manual. October.*—Examine and weigh the hives; and after cleaning the stools, fasten them down for the winter. See that the coverings are clean and weather-tight; and finally remove what combs can be spared. *November.*—Inspect the hives and clean the stools, contract the entrance, and see that the coverings are clean, and the hives so secured as not to be blown off by the wind. *December.*—In very cold and snowy weather close the mouths of the hives as much as possible, and clear away any snow that falls upon the table. *January.*—Towards the latter end give the bees more air. *February.*—Enlarge the entrance of the hive, and in mild weather inspect the hive and clean the stools. This is a good month for purchasing hives. *March.*—Remove all incumbrances from the mouth of the hive, and make every part thoroughly clean. Supply the bees with fresh water. Make an addition to such hives as are strong and heavy, and extract such combs as are old and discolored. Feed weak hives. *April.*—Destroy moths and butterflies. Watch for the signs of swarming; and towards the latter end make artificial swarms, where desirable. Destroy wasps, especially the queens. *May.*—Frequently inspect the hives, and clean away everything offensive. Make preparations for hiving swarms, and keep a good look-out in fine weather. *June.*—Feed new swarms in rainy weather, and enlarge such hives as are numerous and active. *July.*—Remove part of the produce of the bees. Destroy wasps' nests and inspect the hives for vermin. *August.*—Examine and weigh the hives, and take combs from such as exceed 30lbs. *September.*—Transport hives to more abundant pastures. Assist in killing drones. Furnish new coverings when necessary. Inspect the hives, clean the stools, and destroy vermin.

1328. Duties of a Coachman.—A coachman, besides his skill in driving, requires complete experience of the stable of which he has the management. Where a single horse or pair only are kept, a man frequently engages to do the entire work; to perform this satisfactorily, he should be energetic and in the prime of life, as the care of a carriage and pair of horses will occupy seven or eight hours daily, independent of the driving. A coachman should be scrupulously neat and clean in his personal appearance when engaged in driving, and above all, he should observe strictly sober habits, otherwise he will be unfitted for his duties, and may jeopardize his own life, and that of his employers.

1329. Duties of a Cook.—A cook who performs her duty well is sure to become a favorite domestic in the household. She should be scrupulously neat and clean, orderly in her habits, good tempered, obliging, and respectful. The kitchen should be kept tidy, and everything connected with it assigned to its appointed place. Before proceeding to her various operations, every duty should be pre-arranged, and a certain portion of time allotted to each, so that there need be no confusion or needless hurry. Never undertake more work than you feel quite certain you can do well; if you are ordered to prepare a larger dinner than you think you can send up with ease, or to dress any dish that you are not acquainted with, request your employers to let you have some help rather than risk the spoiling of a dinner, from a fear of confessing inability. If your mistress professes to understand cookery, follow her directions; and allow her to have all the praise. Do not intrust any part of your work to others without overlooking them, to ensure its proper performance. Never forget, while preparing a dish, that your produce has presently to be eaten, relished, or condemned, to your honor or to your discredit. Whatever can be

tasted during the process of preparation, must be flavored by the judgment of the palate. Whatever may not be tasted before serving must be done strictly and invariably by rule. Though certain methods of doing things may claim the merit of being long-established, there is no reason why improvement or advantageous changes should not be made. The combinations and changes in cookery by means of the same materials are endless, therefore *always think*. Cooks must not only please the palate, but likewise the stomach. The cook who attends to the niceties of the art is a superior servant; but if ignorant or neglectful, is worthless.

1330. Lady's Maid.—The duties of the lady's maid, between the attendance on the toilet, and the charge of the wardrobe, if not arduous, are unremitting. Her daily occupations commence with arranging the dressing room; she then awakens the lady at the proper hour, and retires until, summoned by the bell to dress her hair, and to assist in the completion of the morning toilet. After replacing or putting away everything which has been used, she turns her attention to the state of the wardrobe, until the lady again requires her attendance either in preparing for riding, walking, or dressing for dinner. At night, also, she arranges everything for the retiring of the lady, as she did in the morning for her rising. By this routine of duties it will be seen that a lady's maid should possess distinct qualifications from any other member of the establishment. Her taste in dress should be cultivated, or she will be unable to judge in the dressing-room of the effect which the *tout ensemble* of the lady's costume will have in the drawing-room. She should acquire a knowledge of the most agreeable combination of colors, and of the effects which these produce upon different complexions. If she have also a ready perception of the proper *set* of each part of a lady's attire, and have the art of giving this effect or air, to the dress of her employer, she may be regarded as a skilful tirewoman. It is this art which gives the finishing stroke to that which would otherwise be unfinished. The charge of the wardrobe requires that in dressmaking and millinery she should be a proficient. As a seamstress, expertness in making and repairing linen and other articles will be expected from her; and she should consider that the contents of the wardrobe being under her care, she ought to be capable of using her needle in whatever way the different articles in it may require. Clear-starching, getting up laces and nets, washing gauzes, crape, and silk-stockings, removing fruit-stains or soils from silks, preserving furs, woollens and other worsted clothing from moths, are all included in the duties of a lady's maid. Nor must she neglect to note the quantity of linen sent to and returned from the laundry, nor to make occasional comparison of the contents of the wardrobe with the inventory given to her on entering the service of her employer. Should she be the attendant of an elderly or infirm lady, it may be requisite for her to read aloud agreeably, and to write neatly—acquirements which may be easily gained with diligence and attention.

1331. Gardener.—He who undertakes the profession of a gardener, takes upon himself a work of some importance, and which requires no small degree of knowledge, ingenuity, and exertion to perform well. There are few businesses which may not be learned in much less time than that of a gardener can possibly be. It is necessary that he should have had much practice in the various parts of horticulture, and that he should possess a genius and adroitness, fitting him for making experiments, and for getting him through difficulties that the existing circumstances of untoward seasons, etc., may bring him into. He should possess a spirit of inquiry into the nature

of plants and vegetation, and be acquainted with the resources of art that may be made available. The mode of growth, the pruning, the soil, the heat, and the moisture that suits particular plants, are not to be understood without a native taste, and close application of the mind. There are few things to be done in a garden which do not require a dexterity in operation, and a nicety in selecting the proper season for doing it. A gardener should be a sort of prophet, in foreseeing what will happen under certain circumstances, and wisely cautious to provide by the most reasonable means against contingencies. A man cannot be a good gardener unless he be thoughtful, steady, and industrious; possessing a superior degree of sobriety and moral excellence, as well as genius, and knowledge adapted to his business. He should be modest in his manners and opinions, and ever ready to avail himself of the suggestions of others, when they are founded on experience and reason.

1332. Page.—A juvenile male servant, whose duties chiefly consist in performing light miscellaneous offices about the house, opening the door, going on errands, walking behind his mistress, waiting at table, etc. For this service, youths possessed of good figures and pleasing looks are usually selected, and they are expected to have an amount of intelligence and readiness to fit them for their multifarious duties. A certain amount of education is also essential for youths who are destined to fill this post. They should be able to read and write; and as they are often brought in contact with their superiors, they should be grounded sufficiently in the grammatical rules of the language, to enable them to deliver messages, and answer questions correctly and coherently.

1333. Keys.—The care of keys is no unimportant consideration, when it is reflected how much inconvenience and trouble are frequently caused when one of these is missing or broken. In order that keys may be kept together, they should all be fastened on to one ring, and so that the hand may be placed upon them at any moment they should be invariably deposited in a certain spot, known only to yourself; the best way, perhaps, is to lock them up and keep the key under which they are locked up, in your purse or pocket-book. When a key is lost beyond all hope of return, and if it belongs to any receptacle in which articles of value and importance are kept, it is best to have a new lock, so that in the event of the key having been abstracted for dishonest purposes, this design may be effectually frustrated. When there is something amiss with a key so that it will not turn with ease, do not be impatient and endeavor to force it to turn, as this will in all probability break the key and injure the lock; but withdraw the key and examine both it and the lock, and then, after removing any obstruction, make several gentle attempts, and success will most likely be the result. Do not give children keys to play with which are in ordinary use, as they are almost sure to lose them, and a search of some hours will thus be entailed. When there are a great number of keys, and many of them are similar in appearance, they should be distinguished by small labels with their designations marked on them.

1334. Frost Bite.—This insidious and dangerous affection of the extremities and parts most exposed to frost, as the feet and toes, hands, fingers, nose, and ears, is the result of exposure to extreme cold; and though persons of a phlegmatic temperament, and a sluggish state of the circulation are more prone to this misfortune than others, yet it may attack persons of all habits of body, and of all ages. The effect of the sudden application of intense cold, or long continued cold of a less severe character, is, in the first instance, to deaden the nervous sensibility, and next to drive the blood from the part most exposed, and leave it in

such a state of torpidity as to be unable to resist the killing effect of the surrounding cold, which finding the part thus unprotected with the vitality of nervous energy, or the warmth of circulation, in reality freezes it to death. Though excessive cold is the cause of death either to a part or the entire body, the amount of cold the frame can bear with impunity is remarkable; the actual danger, as far as frost-bite is concerned, resulting from the sudden *reaction* in the part, from the rise of temperature, or the application of warmth: on this account, the greatest precaution must be observed, in avoiding all abrupt change of temperature, as by forcing the blood suddenly back to the part, inflammation, mortification, and sloughing, must follow. A frost-bite is known by the swelling and discoloration of the part, attended with pain, numbness, and a sense of pricking; the color, at first bright, becoming of a dull brown, which, if unrelieved, deepens into black. The *treatment* consists in *slowly* and *very cautiously* restoring the circulation, for if the slightest warmth is incautiously applied, mortification is certain to ensue. The patient should therefore be removed into a cold room, and the part rubbed gently with snow, or bathed with cold water, and on no account allowed to enter a room with a fire, or any heated apartment. After half an hour, a small quantity of weak spirits and water may be taken cold; and ultimately the patient put to bed in cold sheets: the treatment of frost-bite resolves itself into the *slow* and *careful restoration of the circulation* in the affected part.

1335. Sitting for a Picture.—When relatives and friends are removed from us by distance or by death, the possession of their portrait forms some sort of compensation for their absence in their own proper person. At the present day, the rapidity with which photographic portraits are executed, together with the lowness of charge, renders them available to all classes of the community. When persons are about to have their portrait taken, they should, if they wish to secure the most perfect resemblance of themselves as they generally appear, sit to the artist without "getting themselves up" for the occasion; thus: a novel style of arranging the hair, divesting the face of whiskers, beard, or moustache, or making any other changes, will so palpably alter the general appearance of the individual, as to render recognition a task of some difficulty. All constrained attitudes and unmeaning expressions of the features should be also avoided. When accessories are introduced by way of accompaniment to the portrait, care should be taken that these are characteristic of the sitter's tastes and habits, and reasonable in themselves. Thus, placing a book in the hands of a person who is notoriously illiterate is an obvious solecism; as is also representing a female striking a guitar who does not know a note of music. Setting a person down before a table on which are placed four decanters of wine, a pyramid of pine apple, and several pounds of grapes, which appear to be intended for the solitary individual's own especial enjoyment, borders on the extravagant and absurd. When persons are having their portraits taken, it is a good plan to divert the mind by recurring to some agreeable incident in their past life, the thoughts of which will impart a pleasant and natural expression to the features.

1336. Expanding the Chest.—Those in easy circumstances, or those who pursue sedentary employment within doors, use their lungs but little, breathe but little air in the chest, and thus, independently of positions, contract a wretchedly small chest, and lay the foundation for the loss of health and beauty. All this can be obviated by a little attention to the manner of breathing. Recollect the lungs are like a bladder in their structure, and can stretch open to double their size with perfect safety,

giving a noble chest and perfect immunity from consumption. The agent, and only agent required, is the common air we breathe, supposing, however, that no obstacle exists, external to the chest, such as lacing it tight with stays or having the shoulders lie upon it. On rising from the bed in the morning, place yourself in an erect posture, your head thrown back and your shoulders entirely off from the chest, then inhale all the air that can be got in; then hold your breath, and throw your arms off behind. Repeat these long breaths as many times as you please. Done in a cold air, it is much better; because the air is much denser, and will act much more powerfully in expanding the chest. Exercising the chest in this manner, it will enlarge the capacity and size of the lungs.

1337. Quarrels. — Two things, well considered, would prevent many quarrels, first to have it well ascertained whether we are not disputing about terms rather than things; and, secondly, to examine whether that on which we differ is worth contending about.

1338. Relaxation. — In order that the daily duties of life may be well and pleasantly performed, it is absolutely necessary that the ordinary routine of employment should be broken by occasional intervals of relaxation. No person can work continuously and unremittingly upon a set task for a protracted period of time, without prejudicing not only his own health, but the labor he is employed upon. And if there are instances on record of an amount of labor of almost superhuman extent being performed by one man, in a given space of time, the terrible sacrifices that have been made at the time, and the consequences which have frequently resulted, ought to be sufficient to deter any one from following in the same path. Supposing even that no injury accrued from these unbroken spells of labor, on the score of saving of time, the system will be found defective. If a man work twenty hours to-day, he will probably not be able to work at all the following day, and on the next not more than five or six hours—making twenty-six hours in the three days; but if he worked ten hours the first day, he would be able to work for the same space of time on the second and third days, making in all thirty hours, or a gain of four hours in the three days. Carrying out this principle in a more extended form, it will be easily perceived that, as a general rule, the person who has his periods of relaxation will be enabled to work for more years than the incessant laborer, and thus extend his lifetime, not only for the operations of his mind and his hands, but also for the enjoyment of the comforts and pleasures of life which Providence has assigned him. In taking relaxation, one grand principle should be followed, in order to derive unalloyed advantage from it, and that is to divert the mind entirely from all thoughts, schemes, or plans in connection with every day occupations, and to live and move only in those scenes which have been resorted to for the purposes of relaxation.

1339. The Value of Diamonds. — Diamonds are invariably estimated by the carat,—151½ of which equal one Troy ounce, or 480 grains. The value of a rough diamond, fit to be polished, is calculated at half its weight, as it is supposed to lose fifty per cent. in cutting and polishing. For the valuation of polished diamonds, the old rule, given by Jeffries in 1750, was to square the weight and multiply the result by the price of a single carat; thus supposing a one-carat stone to be worth $40, one of two carats would be worth $2 \times 2 = 4 \times 40 =$ $160; one of four carats, $4 \times 4 = 16 \times 40 =$ $640, and so on for all stones under one hundred carats. This rule may have answered in his day, but as the price of diamonds is now regulated by the same laws which govern the value of other commodities—those of

demand and supply—it is impossible to lay down any rule by which to calculate their value according to any arbitrary connection with their weight; as any particular size is in demand or not, so will that size augment or diminish in value. The discrimination of the various colors, qualities, etc., which exercise an immense influence over the value of diamonds, is difficult, and requires a long experience; but the following instructions will enable the most inexperienced person to decide whether a diamond is perfect or not, and a glance at the Table of Values, and a comparison with the Plate of Sizes, will enable such a person to determine the value of any particular stone, if it is free from defects; although it will not enable him to value inferior or defective gems.

The following Plate of Sizes and Table of Values, is taken from an excellent work on "Diamonds and Precious Stones," by H. Emanuel, F. R. G. S.; second edition, London, 1867. The author says: "For a diamond to be worth the price fixed against it in my table, it must possess the following qualifications:

"*First.* It must be perfectly free from the faintest tinge of color *of any sort;* from any flaws, specks, marks or fissures in any part; must be bright and lively, and free from what is technically called 'milk or salt,' which are semi-opaque imperfections in the body of the stone. In order to ascertain this, it is sufficient to breathe on the stone, when any defect or color will be apparent.

"*Second.* The stone must be well proportioned and properly cut, and be of the size shown in the Plate. The culet must be one-sixth of the size of the table, from the table to the girdle must be one-third, and from the girdle to the culet two-thirds of the whole thickness of the stone. The size of the table should be four-ninths of the extreme size of the stone. Any diamond having its substance otherwise divided is badly proportioned, and therefore worth less than a properly proportioned stone."

The upper or flat part of the diamond is called the *table*; the *girdle* is the centre edge; and the lower or pointed part is the *culet*. *See Diamonds.* (1319.)

Plate of Sizes.

The Plate shows the actual size of well-proportioned Brilliants of the various weights. The black lines underneath show the relative thickness each should have, and the dots show the size of the culet.

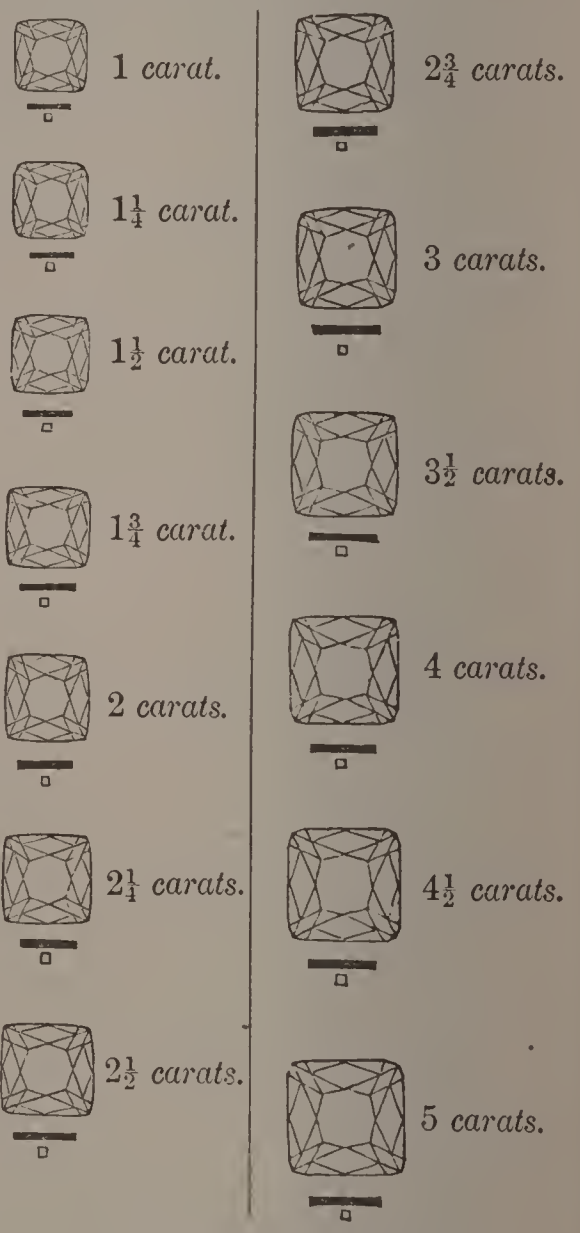


Table of Values.

The prices given are for perfectly pure Brilliants, free from defects and flaws, of the proportions shown, and

liable to variation with the changes of the market.

	Value in 1867.
A Brilliant weighing $\frac{1}{2}$ carat,	$ 30.
" " $\frac{3}{4}$ "	55.
" " 1 "	105.
" " $1\frac{1}{4}$ "	175.
" " $1\frac{1}{2}$ "	225.
" " $1\frac{3}{4}$ "	275.
" " 2 "	400.
" " $2\frac{1}{4}$ "	450.
" " $2\frac{1}{2}$ "	550.
" " $2\frac{3}{4}$ "	600.
" " 3 "	700.
" " $3\frac{1}{4}$ "	750.
" " $3\frac{1}{2}$ "	875.
" " $3\frac{3}{4}$ "	950.
" " 4 "	1100.
" " $4\frac{1}{4}$ "	1200.
" " $4\frac{1}{2}$ "	1500.
" " 5 "	1750.

1340. Life Insurance.—The prineiple of life assuranee is to secure the insurer or his representatives the payment of a certain sum in the event of death or some other eontingency stipulated for. There are various methods of effecting insuranees, dependent on the objeet in view, or some personal eircumstanee in eonneetion with the insurer. *Ordinary life assurance* is the stipulation for a eertain sum to be paid on the death of the insurer, whenever that event may oecur; the assuranee, therefore, extends over the whole term of life. The amounts of premium or annual payments for the sum of $1000 will depend entirely upon the age of the person at the time the insuranee is effeeted. Thus, for example, a person at the age of twenty would have to pay a premium of $17.28; at thirty, $22.64; at forty, $31.60; at fifty $47.70; at sixty, $76.90. It is, therefore, important for a person to effect an insuranee on his life as early as possible; beeause, although he himself grows older, the premium always remains the same. *Endowment Insurance* provides for the payment of a certain sum to the insured upon his arriving at a specified age; or to his representatives should he die before the time speeified. Thus a person aged 30, by the payment of an annual premium of $67.70, would secure for himself the sum of $1000 on attaining the age of forty-five. *Reversionary Insuranee* is where the payment of a stipulated sum is guaranteed to a given person on the death of another. It is an insurance effeeted by A. on the life of B., payable to A. on the death of B. This mode of insurance is subject to a variety of conditions, and is capable of application to innumerable cases. *Joint Lives Insurance* is that which is effeeted on two or more lives for the benefit of the last survivor. The following are some of the illustrations of this particular method:—1st. On payment of $29.30, annually, during the joint continuation of two lives, aged twenty, the sum of $1000 would be reeeived upon the death of either. 2d. Suppose a husband to be thirty-five, and his wife thirty years of age; an annual payment of $41.24 will secure to the survivor the sum of $1000.

Having thus given an aeeount of the various kinds of life insurance, the next important matter is to point out how ordinary life insuranee may be effected. Before entering into a transaction of this kind, the intending insurer should consider well the nature of the contraet to whieh he is to beeome a party, and to understand fully the prineiples upon which it is to be eonducted. It should be remembered that this is a eontraet for life; and when the insurer enters into it he binds himself to adhere to the rules and regulations laid down, and any deviation on his part will, ultimately, render the agreement null and void. By this means he forfeits all the benefits guaranteed and stipulated by the eontract itself. The first thing which should be attended to in the selection of an office is its well known respectability and standing. Among so many offiees with which business may be safely transacted, it would be invidious to speeify any in particular; as a rule

however, the insurer should select an old and long-established company in preference to a new one, for although the latter may surmount those obstacles which young insurance offices have to contend with, and punctually meet their engagements, the first named offices, having passed through the stage of probation, are obviously in a better position to satisfy the demands made upon them. As there is great competition among insurance offices, some in order to secure business, are in the habit of tempting insurers, first, with a comparatively low scale of premiums; and, secondly, with the prospect of extraordinary advantages; but these present benefits should be regarded as of minor importance, as compared with the consideration of the security for the future. The amount to be insured can only be regulated according to the pecuniary resources of the insurer himself; and on no account should he be induced to enter into an obligation to pay a larger amount of premium than there is a reasonable prospect of his being able to continue. The most prudent course is, when any doubt on this head exists, to insure in the first instance for a less sum, and increase the amount in proportion to the augmentation of income. An important consideration in the negotiation of a life insurance, and one which cannot be too deeply impressed upon the mind is, that the basis of the contract or agreement is founded upon the insurer's own personal statement; as made in the proposals furnished by himself. It is to be feared that in many instances answers are given to the questions put by the office, which are at variance with the fact, and this is done not so much with a desire of wilfully suppressing the truth, as from not having duly considered the importance of the question, and the consequences which may result from the answer. It should be borne in mind, therefore, that any false statement respecting the health, habits, age, or other personal matters, are sufficient to invalidate the policy. Thus there are instances upon record where persons have died of a certain disease, which attacked the person so afflicted on several occasions during his life, in a milder form. When the question has been put, whether the intending insurer has ever been attacked with the specific malady, the answer has been, "Never." But the circumstances of death having awakened the suspicions of the insurance office, inquiries have been set on foot, and the fact has come to light that the deceased was attacked by, and treated for, this complaint on several occasions during his lifetime. The policy has been accordingly vitiated. It should be remarked, that in order to avoid error or misrepresentation, the whole of the insurance offices are remarkably plain and explicit in their directions and instructions in their printed forms of proposals. These printed forms, and any desired information may be obtained by application at any of the insurance offices, or from any of their agents.

The intervals at which the premiums are made payable, are generally regulated at the option of the insurer, quarterly, half-yearly, and yearly. The punctual payment of the premiums as they fall due is a matter of the greatest importance; because, when this is omitted to be done, the contract is at once violated; the office is no longer liable, and the policy becomes so much waste paper. To allow for contingencies, a certain interval beyond the precise day on which the premium falls due is usually granted, these are termed "days of grace," extending to fourteen, twenty-one, or thirty; during which time, if the premium be paid, the policy still holds good. And here a word of warning is necessary against procrastination; for the records of life insurance show, that innumerable instances have occurred, when policies have been forfeited by the lapse of a day or even a few hours. Therefore, although these days of grace are allowed, it is unwise to take habitual

advantage of them, because it is impossible to say what accident may arise to prevent the policy holder carrying into effect that which he proposes to himself to do within the given time. The policy now being delivered into the hands of the insured person, represents a certain value, and the value is all the more enhanced by the convertible nature of the policy. Thus a policy may be assigned during the life time of the insurer to any person whom he deems fit; the amount which it represents may be willed to any person just as any other tangible property may be. The next point is to ascertain the line of conduct which is to be pursued, to obtain payment of the policy, when the person whose life was insured dies. When that event occurs a notification is required to be sent to the office. The cause of death must also be certified and other surrounding circumstances, which should be stated as accurately as possible. The primary object, however, in requiring the cause of death to be stated is, in order to ascertain that the particular disease of which the person died did not exist when the insurance was effected—that is, within the knowledge of the party; and that the party did not die by the hand of justice. When the explanations given prove satisfactory, the amount of the policy is paid within a stated time after the death of the insurer.

1341. Accident Insurance.—This class of insurance covers all cases of bodily injury or death, caused by purely accidental means, whether it happens while travelling on the street or on the farm, in the store, office, mill or workshop, or in any of the lawful and usual avocations of life—such as dislocations, broken bones, bruises, cuts, stabs, gunshot wounds, crushing or mangling, burns and scalds, bites of mad dogs or serpents, unprovoked assaults by robbers or murderers, stroke of lightning, or drowning, where such accidental injury *totally disables* the person from labor or business, or causes death within three months from the happening thereof. Policies are issued insuring "for death only," covering fatal accidents of all kinds; for "indemnity only," insuring against non-fatal accidents which are totally disabling; and for "death and indemnity," covering both fatal and non-fatal accidents. The latter form is the most desirable, as it secures a stipulated sum per week, ($5 for each $1000 insured) for a period not exceeding twenty-six consecutive weeks for any one accident, and the payment of the principal sum insured, less the amount paid as indemnity, if the injury cause death, within three months. The cost of accident insurance varies according to the degree of hazard; and the risks are classified as follows: — *Preferred* — $5 per $1000: Accountant, apothecary, attorney, artist, author, barber, banker, book-keeper, bookseller, clergyman, clerk, draughtsman, editor, merchant, photographer, physician and surgeon, post-master, teacher, telegraph operator, etc. *Ordinary*—$7.50 per $1000: Actor, architect, baker, bookbinder, boot and shoe maker, builder, cabinet maker or carriage maker, civil engineer, confectioner, coppersmith, commercial agent, dentist, electrotyper, engineer of stationary engine, engraver, gardener, gas fitter, harness maker, horse car conductor, machinist, medical student, marketman, master mechanic, miller, milkman, plumber, printer, saddler, segar maker, ship builder, silversmith, sign painter, stereotyper, stone cutter, tallow chandler, tanner, travelling agent, wagon maker (not using circular saw), warehouseman, watchmaker or jeweler, weigher or gauger, etc. *Medium*—$10 per $1000: Baggage master (at station), barkeeper, blacksmith, brass founder, brick or stone mason, butcher, boiler maker, car driver, carpenter and joiner (not using circular saw), coachman, conductor on passenger train, cooper, drayman, freight agent, glass blower, hostler, livery keeper, moulder, painter (house or

ornamental), policeman, quarryman, railroad contractor, ship carpenter, stage driver, tavern keeper, tool maker, working farmer, wood chopper, workman in furnace, foundry, rolling mill, forge, etc. *Hazardous*—$15 per $1000: Bargeman, base ball player, boatman, captain of lake or sea vessel or steamer, chemist, (manufacturing,) dock laborer, engineer, (mining operations,) farrier, fisherman, grinder of edge tools, horse shoer, master, mate or steward of lake or sea vessel or steamer, match maker, operative in saw or planing mill, (not buzz sawyer,) seaman on lake or sea steamer, timber hewer, wood carver, etc. *Extra hazardous*—$20 per $1000: Brakeman, (passenger trains,) buzz sawyer, car coupler, cartridge maker, circular sawyer, common sailor, dispatcher, (railroad,) freight conductor, horse breaker or trainer, locomotive engineer or fireman, percussion cap maker, pyrotechnist. Example: The payment of $10 annually will purchase for any person classed as "ordinary," a yearly "death and indemnity" policy, which secures for him, in the event of an accident, $5 per week, and $2000, payable to his representatives, should the accident terminate fatally. The same person, by the payment of $50, would be entitled to $50 weekly compensation, and $10,000 in case of death.

1342. Railway Passengers' Insurance.—This form of accident insurance is well suited to travellers, as an insurance ticket can be purchased for any number of days desired. Twenty-five cents will buy a ticket, good for twenty-four hours from the time it is issued; which insures the holder $15 per week, if accidentally injured, and $3000, if he die from said injuries within ninety days. To facilitate such insurances, the ticket agents at most railway stations are authorized to sell insurance tickets; they may therefore be purchased at the time the traveller pays his railroad fare.

1343. Fire Insurance.—The advantages of fire insurance are well known. By it a tradesman or private individual can, by the payment of an annual sum proportioned to the risk, secure himself against loss in the event of his place of business or dwelling-house, or their contents being destroyed by fire. It is almost impossible to form a correct classification of the various risks undertaken. They are, however, generally divided into *common hazardous*, *doubly-hazardous* and *special*—the rates varying from one to ten dollars per thousand. The more fragile and costly contents of a house, such as china, glass, mirrors, and pictures, are charged at a higher rate of premium than the ordinary articles of household furniture; as being more susceptible of damage in the event of fire: whilst books of accounts, written securities, bills, bonds, ready money and gunpowder, are deemed *un*insurable. The conditions on which an insurance is granted are in all cases printed upon the policy, and form a part of the contract, being in general so well defined as seldom to require submission for judicial interpretation. Candor is imperative on the part of all persons proposing for insurance. Any misrepresentation in describing the building, or goods, or the process of manufacture carried on, whereby the same may be charged at a lower rate of premium than they otherwise would be, invalidates the policy; and if any alteration be made in the state of the building or process of manufacture, after the insurance is effected, the insured is required to give due notice thereof to the insurers, otherwise he forfeits all right of recovery under his policy. The party effecting an insurance must have an interest in the property insured, to enable him to establish a claim against the insurance company; and a trustee, mortgagee, or agent is held to have sufficient interest to effect a policy of insurance, provided the nature of such interest be distinctly specified at the time of effecting the insurance. An insurance on the same property in any other office must be

named in, or indorsed on, the policy, and in the event of loss, each office pays a rateable portion thereof. It frequently occurs, however, that various parties have separate interests in the same property, in which case, each may insure his own interest without communication with the others. A separate sum must be insured on each building, and on the contents of each. But goods in the upper part of the house will be included with goods in the lower part of the same building, unless the policy is expressly limited to the whole of the goods on the upper part. The offices generally hold themselves liable for loss occasioned by lightning and gas explosions; also for losses occasioned by ineendiarisms. There is a general exemption from liability in the case of fire occasioned by invasion, foreign enemy, civil commotion, riot, and any military or usurped power.

Policies of insurance may be effected for any period. If for a year or a term of years, fifteen days grace are usually allowed for the payment of the premium. A poliey of insurance is not in its nature assignable, nor can it be transferred without the express consent of the office. When, however, any person dies, his interest remains in his executors, or administrators respectively, who succeed or become entitled to the property, provided such representatives respectively procure their right to be indorsed on the policy. The method of effecting an insuranee is extremely simple, and need only occupy a few minutes: a person desiring to insure gives the particulars to any agent of the company, the amount payable for the first year's premium is at once calculated, a receipt is given for the same, and although the policy is not then handed over, still the insurance may be considered to be virtually effected from that moment. *Persons having a number of buildings insured, or a number of policies of insuranee on one building; should so regulate it as to have them expire on the same day, and then set apart that particular day of the year to have them renewed.*

When a fire occurs, and the property is only partially destroyed, a claim has to be sent in by the insured, in which the articles burnt or otherwise injured have to be enumerated, and their separate value estimated as nearly as possible. In making out the claim, particular regard should be made to truth and honesty, and all mis-statements should be carefully guarded against. Many offices make it one of their conditions that the statement of loss should be supported by the oath or affirmation of the claimant. In the majority of cases, a fire does not involve a total loss, and the insurance company is liable for the actual amount of loss or damage sustained—not exceeding the sum insured by the policy, which is the maximum, beyond which no claim can extend. The offices generally reserve to themselves the power of reinstatement, instead of the payment of the amount claimed.

1344. Dying words of distinguished Men and Women.

George Washington. It is well.

Thomas Jefferson. I resign my soul to God, and my daughter to my country.

Andrew Jackson. What is the matter, my dear children? Have I alarmed you? Oh! do not cry. Be good children, and we will all meet in heaven.

John Quincy Adams. It is the last of earth; I am content.

Horace Mann. When you wish to know what to do, ask yourself what Christ would have done in the same circumstances.

General Braddock. We shall better know how to deal with them another time.

Alexander Hamilton. Grace, rich grace.

Patrick Henry. Here is a book (the Bible) worth more than all others ever printed; yet it is my misfortune never to have found time to read it. I trust in the mercy of God. It is now too late.

Wm. H. Prescott. How came you to remember?

Benjamin Franklin. A dying man can do nothing easy.

Daniel Webster. I still live.

Wm. Henry Harrison. I wish you to understand the true principles of the government. I wish them carried out. I ask nothing more.

Zachariah Taylor. I have endeavored to do my duty.

James Buchanan. O Lord Almighty, as Thou wilt.

Henry Clay. I am going; I am dying.

Captain Lawrence. Don't give up the ship.

Stephen Girard. How violent is this disorder; how very extraordinary it is.

Thomas Payne. Taking a leap in the dark. Oh, mystery!

John Randolph. Remorse, remorse! Write it larger, larger.

Francis Marion. Thank God! I can lay my hand on my heart and say, that since I came to man's estate, I have never intentionally done wrong to any.

Gœthe. Let the light enter.

Mozart. Emilie, take my last notes, sit down to my piano here, sing them with the hymn of your sainted mother; let me hear once more those notes which have so long been my solacement and delight.

Michael Angelo. My soul I resign to God, my body to the earth, and my worldly possessions to my relations.

Schiller. Many things are becoming clearer to me.

Gibbon. Why do you leave me?

Edmund Burke. (To a friend who was assisting him.) God bless you.

Talleyrand. Sire, I am suffering the torments of the damned.

Lord Bacon. A little philosophy inclineth men's minds to atheism, but depths of philosophy bring men's minds about to religion. Thy creatures, O Lord, have been my books, but Thy holy Scriptures much more. I have sought Thee in courts, fields and gardens, but I have found Thee, O God, in the sanctuary.

Alexander the Great. In answer to the question, "at what time they should pay him divine honor?" answered. When you are happy.

Mahomet. O Allah, be it so! among the glorious associates in paradise.

Agustus Cæsar. Farewell, Livia, and ever remember our long union.

Cicero. (Bowing his head to the assassins.) Here, veteran, if you think it right—strike.

Napoleon I. Head of the army.

Queen Elizabeth. All my possessions for a moment of time.

Mary Queen of Scots. O Lord, in Thee have I hoped, and into Thy hands I commend my spirit.

Cleopatra. (To the asp.) Here thou art.

Anne Boleyn. (Clasping her neck.) It is small, very small, indeed.

Madame de Stael. I have loved God, my father and liberty.

Marie Antoinette. Lord, lighten and soften the hearts of my executioners. Adieu forever, my dear children. I go to join your father.

Madame Roland. O liberty! liberty! how many crimes are committed in thy name.

Empress Josephine. I shall die regretted. I did all in my power to contribute to the happiness of France. I can say with truth that the first wife of Napoleon never caused a tear to flow.

Lady Jane Grey. Lord, into Thy hands I commend my spirit.

Cæsar Borgia. I had provided in the course of my life for everything except death, and now, alas! I am to die, though entirely unprepared.

Cardinal Beaufort. What! is there no bribing death?

Christopher Columbus. Into Thy hands, O Lord, I commend my spirit.

Lord Palmerston. The treaty with Belgium; yes, read me that sixth clause again.

Lord Nelson. Thank God, I have done my duty.

Henry Havelock. Come, my son, and see how a Christian can die.

Sir Walter Scott. I may have but a few minutes to speak with you, Lockhardt. Be a good man, be virtuous, be religious; nothing else will give any comfort when you come to lie here. Don't disturb Sophia and Annie. Poor souls! I know they were up all night. God bless you all.

Douglas Jerrold. Why torture a dying man, doctor?

Robert Burns. Don't let that awkward squad fire over my grave.

Lord Chesterfield. Give Dayrobbe a chair.

1345. Astronomical Facts.—Astronomy is that science which teaches the knowledge of celestial bodies—the sun, moon, planets, comets, and fixed stars, with their magnitudes, motions, etc. The solar system consists of the sun and a number of bodies called planets and comets, moving round him in regular orbits, or paths. The sun is an immense spherical body, which revolves round its axis in twenty-five days and ten hours, and communicates light and heat to all the planets and comets included in the solar system. The fixed stars are supposed by astronomers to be suns like our own, each of them surrounded by a complete system of planets and comets. Their immense distance from the earth occasions their appearing so very small. The difference between planets and fixed stars is, that the planets are always moving in their respective orbits, and have no light of their own, but receive it from our sun; the stars, on the contrary, appear constantly in the same position, and shine by their own light. The principal planets that have been discovered are eleven, and are called, Mercury, Venus, the Earth, Mars, Ceres or Piazzi, Pallas or Olbers, Juno or Harding, Vesta, Jupiter, Saturn, and the Georgium Sidus, or Urania. The order in which the planets move round the sun is as follows:—Mercury moves in the first or least orbit, Venus in the next; these two are called inferior planets, because their orbits are within that of the earth; then follows the Earth, with its attendant the moon; then Mars; and next to him the newly-discovered planets, Ceres, Pallas, Juno, and Vesta; afterwards Jupiter, with his four moons; Saturn is next, who has seven moons, and is also surrounded by a broad ring of light; lastly, in the greatest orbit, moves that planet called Georgium Sidus, which has six moons already discovered. These eight planets are called superior, because they do not move within the earth's circle. The color of Mercury is a sparkling red, of Venus a yellowish white, of Saturn a dim red, of Mars a fiery red, of Jupiter a splendid white; added to his four moons Jupiter has faint light substances called belts, which, from the frequent changes observed in them, have been generally supposed to be only clouds. Venus, when west of the sun, rises before that luminary, and is called Lucifer, or the morning star; when east of the sun she rises after he sets, and is then styled Vesper, or the evening star; this appearance continues for 290 days alternately. Mercury takes about three months to move round the sun; Venus, seven months and about fifteen days; the Earth, 365 days; Mars, two years; Piazzi, four years and six months; Pallas, four years seven months and about ten days; Juno, four years and four months; Jupiter, twelve years; Saturn, thirty years; and the Georgium Sidus, eighty-three years. The distance of Mercury from the sun is 36,000,000 miles; Venus, 68,000,000 miles; the Earth, 95,000,000; Mars, 145,000,000; the distance of Ceres and Pallas has not been clearly ascertained; Juno is 300,000,000; Jupiter, 490,000,000; Saturn, 900,000,000; and the Georgium Sidus, 1,800,000,000 of miles distant from the sun. The sun is 1,380,000 times larger than the earth; and the planet Mercury is fourteen times less than our earth.

The fixed stars may be easily known, for they are less bright than the planets, and always appear to be twinkling; the number of fixed stars visible to the

naked eye is about a thousand, and astronomers have counted 50,000 in all. These stars are divided into many constellations or clusters of stars, which include them nearly all; and the few stars which cannot be brought into any of them are called unformed. Only some of the most remarkable of these stars have names, and those which have not any name are distinguished on the globe by the letters of the Greek alphabet, α standing for the largest star, β for the second, γ for the third, and so on according to their magnitude. The Galaxy, or Milky Way, is a white track round the heavens, caused by the intermingled rays of a vast number of fixed stars, apparently of small magnitude, which may be seen with a telescope.

Comets are opaque and luminous bodies, moving in various orbits round the sun; in their approach to that luminary they exhibit long trains of bright vapor issuing from that part opposite the sun. The reason why they are visible for so short a time, and are invisible for so long, is the extent of their orbits. Seven hundred have been observed, and there are believed to be many more; but we only know when to expect the return of three. The first, called Halley's, appears every 75th year, and was last seen in 1835; the second, called Biela's, has an orbit of $6\frac{3}{4}$ years; the third, called Encke's, one of $3\frac{1}{3}$ years. There is another which, from historical tradition, is suspected to appear every 575th year, and, in that case, will return in 2225, but this is still uncertain.

Eclipses are the partial interception of the sun's direct, or reflected rays to any planet by another celestial body passing between it and the sun, or between it and any other planet. The sun is eclipsed when its light is intercepted by the moon coming directly between the sun and the earth. This can only happen at the time of the new moon, because at that time only the moon is between the sun and the earth. In an eclipse of the moon the earth comes between the sun and the moon, which obstructs the light. This can only take place when the moon is at full.

The ancients formed the stars into fifty constellations, but the moderns have increased that number to eighty. The following are the signs of the Zodiac:—Aries (♈), the Ram; Taurus (♉), the Bull; Gemini (♊), the Twins; Cancer (♋), the Crab; Leo (♌), the Lion; Virgo (♍), the Virgin; Libra (♎), the Balance; Scorpio (♏), the Scorpion; Sagittarius (♐), the Archer; Capricornus (♑), the Goat; Aquarius (♒), the Water Bearer; and Pisces (♓), the Fishes. The Ecliptic is an imaginary great circle, which the sun appears to describe in the course of a year among the stars. The Zodiac is an imaginary broad circle, or belt, surrounding the heavens, and extending several degrees on each side of the ecliptic. The *terrestrial equator* is a great circle of the earth, equi-distant from the north and south poles, and separates the globe into northern and southern hemispheres. The *celestial equator* is a plane of the terrestrial equator, extending to the fixed stars. Each sign of the Zodiac contains thirty degrees, and as there are twelve signs, the Zodiac must contain 360 degrees.

1346. The Atmosphere.—By this term is understood the whole mass of fluid, consisting of air, aqueous and other vapors, surrounding the globe, and supposed to extend to the height of forty or fifty miles above the surface of the earth. The atmosphere, like other bodies, gravitates towards the earth; and therefore has weight and pressure. At the level of the sea, or earth's surface, the average pressure of the atmosphere on every square inch of surface is fifteen pounds. The total amount of atmospheric pressure on the earth's surface, is estimated at 12,042,604,800,000,000,000 pounds. This pressure is equal to that of a globe of lead of *sixty miles* in diameter. The body of a man of ordinary size has a surface of about 2000 square inches, and is therefore

subjected to the enormous pressure of 30,000 pounds. We do not feel this pressure, because it is counterbalanced by that of the air within our bodies. The lower parts of the atmosphere are the densest, as they have the greatest quantity of air pressing on them from above; and the higher we go, the less is the pressure of the atmosphere, and the rarer the air. At an altitude of 18,000 feet, the air is only half as dense as at the surface of the earth; and as the densities of the atmosphere decrease in a geometrical progression, it would be reduced to *one-fourth* at the height of 36,000 feet, and to *one-eighth* at 54,000 feet. The effects of the decreasing density of the atmosphere are, that the intensity of light and sound are diminished, and the temperature is lowered. Persons who have reached a very high elevation, state that the sky above them began to assume the appearance of darkness; and there can be no doubt, that at an elevation of forty or fifty miles, there is *perfect blackness.*

Upon the summit of Mont Blanc, the report of a pistol can scarcely be heard. The rarity of the air is painfully felt by those who ascend to great heights; the pressure of the external air being diminished, that which is in the body expands, causing the delicate blood-vessels to burst, the skin to crack, and blood to issue from the nose and ears. M. Gay Lussac, who ascended in a baloon from Paris, in 1804, and who attained the height of 23,000 feet, or upwards of four miles and a half, states that at this height he breathed with great pain and difficulty, and felt distressing sensations in his ears, as though they were about to burst; and upon the high table-lands of Peru, the lips of Dr. Ischudi cracked, and blood flowed from his eyelids.

1347. Meteorological Facts.—Meteorology is the science which treats of the phenomena of the atmosphere; among which are winds, clouds, fog, dew, rain, snow, hail, etc.

1348. WINDS.—Wind is air put in motion. The motion of the air is the result of changes constantly taking place in the earth's temperature. Those portions of the atmosphere that rest on the hotter regions of the earth become heated and rarefied, and rising leave a vacuum which is immediately filled by the cooler air rushing in from the surrounding parts. The direction of the wind is determined by various causes, such as the projections on the earth's surface, the unequal distribution of land and water, and also by the revolution of the earth on its axis. There are three kinds of winds; constant, periodical and variable. Constant winds are those that blow in the same direction throughout the year. The most noted of these are the Trade Winds, which extend about 30 degrees on each side of the equator, a zone of 6 degrees near the centre, which is known as the Region of Calms, being excepted. They blow uninterruptedly from northeast to southwest in the northern hemisphere, and from southeast to northwest in the southern hemisphere. Were the earth stationary, the trade winds would be due north on one side of the equator, and due south on the other; but the earth's diurnal revolution, from west to east, modifies these directions, so as to make the north wind northeast, and the south wind southeast. The prevalence of calms at the equator is caused by the meeting of opposite currents which resist and counterpoise each other. Periodical winds are such as blow regularly in the same direction at a certain season of the year, or hour of the day. The monsoon, the simoom, and the land and sea breezes are periodical winds. The monsoons blow at a given period of the year from one quarter of the compass, and in another period of the year from the opposite quarter of the compass. Monsoons are caused by the changes in the position of the sun. When the sun is in the southern hemisphere, it produces a northeast wind, and when it is in the northern hemisphere, a northwest wind. The northeast monsoon blows from Novem-

ber to March, and the southwest monsoon from the end of April to the middle of October. The region of monsoons lies a little north of the northern border of the trade wind, and they blow with greatest force, and with most regularity, between the eastern coast of Africa and Hindostan. The simoom, originating in the deserts of Asia and Africa, is distinguished by its scorching heat, and the fine sand it carries with it. Land and sea breezes are produced by the unequal heating of land and water. During the day, the land receives more heat than the ocean, and the rarefied air in contact with it rises, and a breeze sets in from the sea about 9 A. M., which gradually increases to a brisk gale by the middle of the day. About 3 P. M., it begins to subside, and is followed in the evening by a land breeze which blows throughout the night. Variable winds are those which are irregular as to time, force, and direction; they prevail chiefly in the temperate and frigid zones. The velocity of the wind is measured with an instrument called the *an-e-mom'-e-ter*. It is found, with this instrument, that a *breeze* travels ten feet in a second; a *light gale*, sixteen feet in a second; a *stiff gale*, twenty-four feet in a second; a *violent squall*, thirty-five feet in a second; a *storm*, from forty-four to fifty-four feet in a second; a *hurricane*, from one to three hundred feet in a second. When wind moves at the rate of one mile an hour, it is scarcely perceptible; when its velocity is one hundred miles an hour, it tears up trees, and devastates its track.

1349. Fog.—The atmosphere always contains more or less moisture, derived from the earth and ocean by the process of evaporation. The higher the temperature of the air, the more moisture it is capable of receiving. At 32 degrees Fahrenheit, it will hold only $\frac{1}{160}$ of its own weight of watery vapor; while at 113 degrees, it will hold eight times as much, or $\frac{1}{20}$ of its weight. When the air contains as much moisture as it is capable of holding at any given temperature, it is said to be *saturated*. Experiments prove that the earth gives out great quantities of moisture by evaporation. An acre of land apparently parched by the sun, sends forth into the air over 3000 gallons of water in twenty-four hours. Dr. Halley estimated the vapor drawn from the Mediterranean during one sunny day, by calculating the surface of the sea, and making an experiment on a small quantity of water; and he was led to believe that at least 5280 millions of tons were thus taken up. The amount of moisture in the atmosphere is ascertained with an instrument called the *hygrometer*. When the air is colder than the earth, the moisture is partially condensed, and thus rendered visible; when this condensation takes place near the earth's surface it is called fog.

1350. Clouds.—Clouds are bodies of vapor floating in the atmosphere. The only difference between fog and clouds is in their height. The varied appearance of clouds is due to the moisture in the air, the direction of the winds, the height at which they fly from the earth, the electrical state of the atmosphere, and their position in relation to the light of the sun and moon. Clouds are divided into different classes, the principal of which are the cirrus, stratus, cumulus, and nimbus. The word *cirrus* means a lock, or curl of hair, and this name, therefore, has been given to those thin curly clouds which appear in long curly streaks, or in occasional curly groups, in the atmosphere. They generally appear in fine weather, and are said to indicate a continuance of the same weather. The cirrus is the highest of all clouds, frequently reaching a height of from three to five miles. It is doubtless often composed of snow-flakes, as the temperature of the regions in which it floats must be cold enough to freeze its watery particles. The *cumulus* has the appearance of many dense white clouds piled one

upon another. If their formation is gradual; if they increase and rise about noon, and disappear towards sunset, they indicate fine weather. The *stratus* consists of horizontal layers of cloud, whose inferior surfaces are not far from the earth; they include those creeping mists, which in calm evenings and mornings ascend in spreading sheets from valleys, and the surface of lakes, rivers, etc. The *nimbus*, or rain cloud, is a dense mass of vapor of a blackish color. These clouds are formed by combinations of the cumulus, cirrus, and stratus. When their position is opposite to the sun, a rainbow generally appears, which looks all the more beautiful in contrast with the dense mass of cloud behind it.

1351. DEW.—When the sun sets, and the earth, and the various objects on its surface, begin to cool, they throw off, *by evaporation*, some of the heat which they received during the day, and when the moisture of the air comes in contact with an object cooler than itself, it is condensed and deposited on the surface. This condensed vapor is dew. The quantity of dew precipitated on different bodies depends much upon their nature. Those which radiate the least heat remain comparatively warm, and so do not favor the formation of dew upon their surfaces; while those which radiate most heat become cold, and cause the moisture of the air to settle upon them. The radiation of heat affords another striking proof of the wisdom with which Providence orders the economy of nature; for if the heat received by day, was not radiated back by night, the earth would soon become so hot as to be unendurable by the vegetable and animal kingdoms existing upon it.

1352. FROST.—Frost is nothing more than frozen dew.

1353. RAIN.—The water taken up by the air in the form of vapor and returned to the earth in drops, is called rain. The annual average of rain, for the whole surface of the earth, is about three feet in depth. It is, however, very unequally distributed; being most abundant in the tropical regions, and decreasing in proportion to the distance from the equator to the poles. Within the tropics the rains, like the winds, occur regularly at certain seasons of the year. In the Northern tropic, they begin in April and end in September; in the Southern, they begin in September and end in April. In the West Indies the average rain fall is nearly ten feet, while at the parallel of seventy degrees of latitude, and upwards, the annual depth is not above ten inches. In some countries, as in Egypt, and parts of Peru and Chili, there is little or no rain. The most obvious cause of rain is cold winds or currents, which acting upon the warm vapor condenses it into drops of water. The influence of winds, in this respect, may be thus stated: if they blow from a *dry* quarter, they disperse the vapor of the clouds; if they blow from a *wet* quarter, they add vapor to that already existing; if they blow from a *cold* quarter, they condense the vapors; if they blow from a *warm and dry* quarter, they disperse and rarefy the vapors of the clouds; but if they blow from a warm country, and cross the ocean, they become loaded with moisture, which they discharge upon reaching a colder latitude. The height from which rain descends has been variously estimated; but the most frequent rain-forming altitude is probably from five to ten thousand feet.

1354. THE RAINBOW.—The rainbow is an arch composed of the seven primary colors, which is visible in the sky when the sun shines during a shower. It is always seen in the quarter of the heavens which is opposite to the sun;—in the west in the morning, and the east in the afternoon. The rainbow is caused by the refraction and reflection of the sun's rays by drops of falling rain. The drops, continually falling, produce a new rainbow every instant; and as no two per-

sons can occupy exactly the same spot at the same time, so no two can, strictly speaking, see the same rainbow. The colors of the rainbow appear the more vivid, as the clouds which are behind them are darker, and the drops of rain fall closer. There is frequently a secondary bow formed, much fainter than the primary one, and at some distance from it. The rays which form the primary bow are reflected, and fall upon other drops of rain, which, like all other reflections, exhibit an arrangement of colors precisely the opposite of that of the object reflected. Lunar rainbows are caused by the light of the moon falling upon rain or mist; they are exceedingly rare, and seldom colored.

1355. HALOES.—Haloes are luminous circles occasionally seen around light-giving bodies, especially the sun and moon. They are more frequently seen around the moon, because the sun's light is so intense that they are lost in its superior brightness. Haloes arise from the refraction of light by vapors, either in the form of clouds, or in a state of diffusion through the atmosphere.

1356. SNOW.—Snow is the watery vapor of the atmosphere *gradually* frozen, which causes its particles to arrange themselves in crystalline forms. Viewed through a microscope, snow-flakes exhibit forms of great beauty and of endless variety; between six and seven hundred different forms have been distinguished. Snow of a beautiful crimson color is found in the arctic regions, which, according to recent accounts, is due to a minute vegetable cell which secretes a red coloring matter.

1357. HAIL.—Hail is also the frozen vapor of the atmosphere; it is first condensed into drops and then *suddenly* frozen. The stones are generally pear-shaped, and frequently weigh from ten to twelve ounces; masses weighing from five to fifteen pounds, have been known to fall.

1358. AURORA BOREALIS.—This species of light usually appears in streams or streaks, ascending to the zenith from a dusky line, a few degrees above the horizon, and is a luminous meteor resembling the aurora, or the rosy blush that streaks the sky with red and purple before the appearance of the sun. These northern lights, or streamers, from the long train of burnished light they leave behind them, are supposed to depend on the agency of electricity in the upper regions of the atmosphere. These streams of light assume all shades of color, and in the northern latitudes serve to illuminate the earth and cheer the gloom of the long winter nights. It has been so often asserted, that the aurora borealis is accompanied by sounds, described as hissing, crackling or murmuring, that there can be no doubt that the phenomenon is so attended. When these lights occur in the south, they are called *aurora australis.*

1359. LIGHTNING.—Lightning is caused by the approach of two clouds to each other, one being overcharged and the other undercharged with electricity; the fluid rushes from the former and discharges itself into the latter, until each contains a like quantity. Lightning clouds vary in altitude, being often three or four miles from the earth, and sometimes they are so close that their edges actually touch it. If the cloud be a long distance off, the electrical fluid, meeting with a great resistance from the air, diverts it into eccentric courses, and causes what is known as fork-lightning. Sheet-lightning is occasioned either by the reflection of distant and imperceptible flashes, or several being intermingled. When a man is struck dead by lightning, the electric fluid passes through him, and by producing a violent shock on the nerves, instantaneously destroys all vitality.

1360. THUNDER.—Thunder arises from the concussion of the air closing immediately after being separated by lightning; if the peal be a broken irregular roar, it is a sure sign that

the lightning cloud is a great distance off; as some of the vibrations of air, necessarily travelling much quicker than others, reach the ear first, and coming at different periods occasion a long-continued rumble. Lightning is seen sooner than thunder can be heard, because the former travels a million times faster than sound.

1361. Waxen Flowers.—The modelling of flowers in wax is an easily acquired art, and one which is encouraging in its results. The materials for commencing the process will cost from five to ten dollars; they may be obtained at most of the fancy repositories, and specimens of the latest improvements and novelties may be seen at the same time at these places. The petals, leaves, etc., of flowers are made of sheets of colored wax, which may be purchased in packets of assorted shades. The stems are made of wire of suitable thickness, covered with silk, and overlaid with wax; and the leaves are frequently made by pressing thin sheets of wax on leaves of embossed calico. Leaves of various descriptions are to be obtained of the persons who sell the materials for wax-flower making. The flowers, leaves, and buds of artificial flowers will serve as the base of their wax models. The best guide to the construction of a flower is to take, say a tulip, a rose, or a camellia (procuring, if possible, two flowers nearly alike), and carefully picking one of them to pieces, lay the petals down in the order in which they are taken from the flower, that you may know their relative positions. The natural flower will be a guide in getting the wax petals together, and will enable the operator to give not only to each petal, but to the contour of the flower, the characteristics which are natural to it. In most cases, they are merely pressed together, and held in their places by the adhesiveness of the wax. From the paper patterns, the wax petals or other portions of the flowers may be cut. They should be cut singly by scissors rather loose at the points, and the scissors should be frequently dipped into water, to prevent the wax from adhering to the blades. The scraps of wax which fall from the cutting will be found useful for making seed vessels and other parts of flowers. Very few and very simple instruments are required, and those may be purchased at the places where the other materials are obtained. Where the manufactured formations of leaves cannot be obtained, patterns of them should be cut in paper, and the venous appearance may be imparted to the wax by pressing the leaf upon it. In the construction of sprigs, it is most important to be guided by sprigs of the natural plant, as various kinds of plants have many different characteristics in the grouping of their flowers, leaves, and branches. For the tints, stripes, and spots of variegated flowers, colors will be supplied from amongst the other materials, and the application of them is precisely upon the principle of water-color painting.

1362. Waxen Fruit.—In making waxen fruit, the following instructions are to be observed: The materials of which moulds are composed should be of the best plaster of Paris, which can be bought from the Italian figure-makers. If this cannot be procured, the cheaper plaster may be substituted, if it can be procured quite fresh. The mould must be made by an impression from the object to be imitated, made upon the plaster before it sets; and, for early experiments, an egg, boiled hard, will be found efficient. Having filled a small pudding-basin about three-quarters full of fine damp sand, lay the egg lengthwise in the sand, so that it is above, and half below, the level of the sand, which should be perfectly smooth around it. Then prepare the plaster in another basin, which should be half full of water; sprinkle the plaster in quickly till it comes to the top of the water, and then, having stirred it for a moment with a spoon, pour the whole upon the egg in the other basin

While the half mould thus made is hardening thoroughly, carefully remove every particle of plaster from the basin in which it was mixed, and also from the spoon which has been used. This must be done by placing them both in water, and wiping them perfectly clean. This is highly important, since a small quantity of mortar which has set will destroy the quality of a second mixing. In about five minutes, the half mould will be fit to remove, which may be done by turning the basin up with the right hand (taking care not to lose the sand), so that the mould falls into the left hand; the egg should then be allowed to fall back gently on the sand out of the mould. The egg being removed and laid aside, the mould must be trimmed; that is, the sand must be brushed from the flat surface of the mould with a nail-brush, very slightly, without touching the extreme and sharp edges, where the hollow of the mould commences. Then upon the broad edge, from which the sand has been brushed, make four equidistant hollows, with the round end of a table-knife; these are to guide hereafter in the fixing of the second half of the mould. The egg should now be replaced in the mould, and the edge of the cast, with the holes, thoroughly moistened with sweet oil, laid on with a feather or camel-hair brush. Into the basin from which the sand has been emptied, place, with the egg uppermost, the half mould, which should fit closely at the edges to the side of the vessel, then prepare some more liquid plaster as before, and pour it upon the egg and the mould, and, while it is hardening, smooth it round with a spoon, as with the first half. In due time, remove the whole from the basin; the halves will be found readily separable, and the egg being removed, the mould is ready to cast in, after it has been set aside for an hour or two, so as to harden completely.

For the first experiment, common yellow wax may be used, or the ends of partially used wax or composite candles. Every large object to be imitated in wax should be cast hollow; and therefore, although the transparent lightness required in the imitation of fruits is not requisite in an artificial egg, yet, in this instance, in order to render the instructions conformable with the principle, the egg will be cast as if it were fruit. The operator must now proceed as follows:—Soak the two pieces of plaster of Paris in hot water for ten minutes. In the mean time, melt the wax very slowly in a small tin saucepan with a spout to it, care being taken not to allow the wax to boil, or it will be discolored; a lump of wax, the size of the object to be imitated, will be sufficient for casting twice at least. As soon as the wax is thoroughly melted, place the saucepan by the side of the fire, and, taking the parts of the mould from the hot water, remove the moisture from their surfaces by pressing them gently with a handkerchief or soft cloth. The mould must not be wiped, but only pressed. Having laid the two halves of the mould so that there can be no mistake in fitting the one in its exact place quickly on the other, pour from the saucepan into one of the half moulds nearly as much wax as will fill the hollow made by the model, quickly fit the other half on the top of it, squeeze the two pieces tightly together in the hand, and, continuing to hold them thus, turn them over in every possible position, so that the wax, which is slowly congealing in the internal hollow of the mould, may be of equal thickness in all parts. Having continued this process for at least two minutes, the hands (still holding and turning the mould) may be immersed in cold water, to hasten the cooling process. The perfect congealment of the wax may be known, after a little experience, by the absence of the sound of fluid on shaking the mould. As soon as the mould is completely cooled, the halves may be separated carefully, the upper half being lifted straight up from the under half,

and if the operation has been properly conducted, a waxen egg will be turned out of the mould. The egg will only require trimming, that is, removing the ridge which marks the line at which the halves of the mould were joined, and polishing off the scratches or inequalities left by the knife with a piece of soft rag, moistened with spirits of turpentine or spirits of wine.

It is always desirable, when the materials and moulds are prepared, to make several castings of the same object, as the moulds are apt to become chipped when laid by in a cupboard; and for this reason, as well as for the sake of practice, beginners are advised to make at least a dozen waxen eggs before any other object is proceeded with. If success attends these first efforts, every difficulty in subsequent operations will be easily overcome. To color wax, stir into it while it is by the side of the fire, a little flake white in powder, and continue to stir the mixture while it is being poured into the half mould. The fixing and shaking of the moulds must be performed quickly, or the coloring matter will settle on the side of the half into which the mixture is poured. To produce a good imitation of the surface, in the first place, very slightly prick with a fine needle the surface of the object, and then, having smeared it with spirits of turpentine, rub the surface all over, so as nearly to obliterate the marks of the needle-point. The simple operation thus described constitutes the fundamental process of waxen fruit and flower making; and in the same manner as the egg is treated, oranges, lemons, large goosberries, small cucumbers, etc., etc., may be operated upon.

1363. Cements.—These substances are employed for the purpose of causing the adhesion of two or more bodies, whether originally separate, or divided by a fracture. As the substances that are required to be joined together are exceedingly various, and differ very much in their properties, texture, etc., a variety of cements possessing very different characteristics are employed. The following will be found to include all those that are best calculated for domestic manipulation. *Cheese Cement:*—Grated cheese, two parts; quicklime (in fine powder), one part; white of egg, sufficient; beat to a paste. *Curd Cement:*—Obtain curd by adding vinegar or rennet to milk; add a little white of egg and powdered quicklime; beat the whole into a paste. *Chinese Cement:*—Finest pale orange shellac (broken small), one part; rectified spirit (strongest), two parts; digested together in a corked bottle in a warm place until dissolved; it should have about the consistence of treacle. *Diamond Cement:*—Dissolve five or six pieces of gum mastic, each the size of a large pea, in as much rectified spirit of wine as will serve to render it liquid; and in another vessel dissolve as much isinglass, previously softened a little in water (though none of the water must be used), in as much French brandy or good rum as will make a two-ounce phialful of strong cement, adding two small pieces of gum galbanum or ammoniacum, which must be rubbed or ground till they are dissolved; then mix the whole with a sufficient heat; keep the glue in a phial closely stopped, and when it is to be used, set the phial in boiling water. *Parabolic Cement:*—Curdle skim milk with rennet or vinegar, press out the whey and dry the curd by a very gentle heat, but as quickly as possible; when it has become quite dry, grind it in a coffee or pepper mill, and afterwards triturate it in a mortar until reduced to a very fine powder; mix this powder with one-tenth of its weight of new dry quicklime, also in a very fine powder, and to every ounce of the mixture add six grains of powdered camphor, triturate the whole well together, and keep it in small wide-mouthed phials, well corked; when required for use, make into paste with water and apply immediately. In the application of cement many persons imagine that the

thicker the cement is put on the edges, the firmer and readier the junction will be; whereas the exact opposite is the fact, the *thinner* the stratum of interposed cement the stronger will be the junction of the surfaces operated upon. And to effect this purpose the cement should be lightly applied to the edges of the fracture by means of a feather.

1364. The Cocoa-nut Tree.—One of the most important trees of the Eastern Hemisphere, being extensively spread over the islands of the Indian Ocean and the Pacific. The cocoa tree is a genus of palms found all over the tropical regions; but generally growing within the reach or influence of the sea or salt water, and often taking root on sandbanks or thinly covered reefs, almost directly after they appear above high water. The tree rises from sixty to ninety feet in height, and affords food, drink, oil, clothing, and shelter to the natives, has a soft, fibrous stem, marked on its bark by rings, produced by the fall of its leaves, two leaves falling off annually; so that the age of a tree can always be told by counting its rings, half the number of the whole giving its age. The top of the tree is always crowned by a plume of from twelve to fifteen long leaves, like gigantic ostrich feathers, about fifteen feet long. The fruit, or nut, hangs in clusters under the crowning plume, and consists of a shell, enveloped in a strong fibrous pericarp, or capsule.

In hot climates every part of the tree is made use of: the natives chew the root as a substitute for the areca; the stem is used as uprights and supports for houses, and for fashioning many domestic implements; the leaves form a thatch, or are made into umbrellas, baskets, buckets, and lanterns; their ashes yield potash in abundance, and their mid-ribs are used as oars and even brushes. The fibre from the nut is woven into cloth, ropes, mats, sacking, and even clothes. By fermentation the juice of the stem is made into a palm oil, and by distillation into an ardent spirit, and also a coarse sugar, called jagghery; while the pith, dried, ground, and washed, forms a farinaceous food similar to sago. The jagghery, or coarse sugar, when mixed with lime, forms a durable compost that takes a polish like marble. The fruit itself is a wholesome food, and its milk a cooling beverage, and forms the chief aliment of many of the natives. The fibre of the shell, called coir, is used also for brushes; the shell is turned and polished into drinking-cups and measures, while the substance of the nut itself, when pressed, yields a large quantity of oil, which is used largely for lamps and flambeaux; and, lastly, the unexpanded buds, when boiled, form a delicate and much-esteemed food.

1365. Fuller's Earth.—A peculiar species of earth or clay, of a greenish-yellow color, found in different parts of England, and one of the principal causes why the British broadcloth has obtained so eminent a distinction for its dress and quality. This earth contains so much alkali, that it may almost be used as a soap; indeed, it is owing to its detergent qualities in removing grease, stains, and other impurities from cloth, that it has become so generally known. It is, however, as a medical agent that it is chiefly mentioned here, being popularly used by mothers as an application to the skin of infants and children, on account of its cooling and healing properties, being employed as a dusting powder, or as a wash to the chafed and abraded parts of young infants, and for the chronic and fœtid sores to which children are liable while cutting their teeth, both in the neck and behind the ears. The clay, when fresh dug up, is baked in an oven or kiln, and thrown, hot, in cold water, which causes the fine powder to fall to the bottom; this powder is then washed and dried, and ready for the uses to which it is put as Fuller's Earth.

1366. Table of Velocities.—The average velocities of the following moving bodies may be thus stated·

	MILES PER HOUR.
A man walking	3
A horse trotting	7
A river	5
A fast sailing vessel	10
A fast steam vessel	18
A railroad train	25
A moderate wind	8
A storm	50
A hurricane	100
Sound	764
A musket-ball	900
A 24-pound cannon-ball	1,600
The earth in its orbit	68,040
Light	691,200,000
Electricity	1,036,800,000

1367. Communication of Heat.—Heat may be communicated in five different ways, viz: Conduction, reflection, convection, absorption, and radiation. *Conduction* is heat communicated by actual contact of two bodies. The best conductors of heat are gold and silver; porous, light substances, such as wood, fur, charcoal, etc., are the worst. Wood is often used in conjunction with metal; for instance, a metal tea-pot generally has a wooden handle, on account of wood being such a bad conductor, that the heat of the boiling water is not conveyed to the hand with such rapidity as if it were metal. Such an excellent conductor is metal, that when touched, the heat from the hand passes rapidly into it, causing to the hand a sensation of extreme frigidity, which is generally considered to come from the metal. When the hot hand touches a pump-handle, the heat of the former passing quickly into the latter, causes the iron to appear cold, when, in reality, it is of the same temperature as the wood in the pump; only the sudden loss of its natural heat produces a feeling of extreme coldness to the hand. Marble is also such an excellent conductor that, when touched, the heat from the hand passes so suddenly into the marble, that a sensation of intense cold is felt, which is in reality caused by the heat leaving the hand, and not by the substance itself, as is generally supposed to be the case. *Reflection* is throwing back the rays of heat from the surface of a reflecting body towards the place from whence it came. Highly polished metals are the best reflectors: for instance, in a kitchen with a tin screen placed behind a joint roasting, the tin reflector throws the heat of the fire back again upon the meat, and thus accelerates its cooking, and conduces to keep the kitchen cool. *Convection* is heat being conveyed to another place or thing; as water being heated at the bottom of a kettle mounts up and carries its heat through the rest of the water as it ascends. *Absorption* of heat means to suck it up as a sponge does water; black cloth, for instance, would absorb the rays of the sun, if placed in it; but if one end of the cloth were made hot, it would not convey the heat to the opposite end, cloth being a bad conductor. A new kettle is longer boiling than an old one, because its sides and bottom being bright, they *reflect* the heat; but on the old kettle the black soot *absorbs* the heat, and causes the water to boil much quicker. *Radiation* signifies the emission of rays. The sun emits both rays of heat and light; fire emitting rays of heat warms us when standing before it; in fact, everything radiates heat to a greater or lesser degree. Polished metal is a bad radiator of heat; therefore it keeps the water hot much longer than other compositions. For that reason metal tea-pots are used in preference to black earthenware, except in cases where the tea-pot is always placed on the hob, when the common black tea-pot draws the tea much better; because it *absorbs* abundantly the heat, and keeps the water hot; whereas a bright metal tea-pot set upon the hob throws off the heat by *reflection*.

1368. Special Rules for the Prevention of Cholera.—i. In almost every case of Cholera, there is a premonitory diarrhœa, lasting from a few hours to several days; which, if properly treated, is readily cured. In time of cholera every movement of the

bowels, after what is natural and customary, must be regarded as a tendency towards the disease.

ii. Let instant medical aid be sought under every form and variety of indisposition; especially disordered bowels.

iii. Let every impurity, animal and vegetable, be quickly removed to a distance from the habitation, such as slaughter-houses, pig-sties, cesspools, necessaries, and all other domestic nuisances.

iv. Let all uncovered drains be carefully and frequently cleansed.

v. Let the grounds in and around the habitation be drained, so as effectually to carry off moisture of every kind.

vi. Let all partitions be removed from within and without habitations, which unnecessarily impede ventilation.

vii. Let every room be daily thrown open for the admission of fresh air; this should be done about noon, when the atmosphere is most likely to be dry.

viii. Let dry scrubbing be used in domestic cleansing in place of water cleansing.

ix. Let excessive fatigue and exposure to damp and cold, especially during the night, be avoided.

x. Let the use of cold drinks and acid liquors, especially under fatigue, be avoided, or when the body is heated.

xi. Let the use of cold acid fruits and vegetables be avoided.

xii. Let excess in the use of ardent and fermented liquors and tobacco be avoided.

xiii. Let a poor diet, and the use of impure water in cooking, or for drinking, be avoided.

xiv. Let the wearing of wet and insufficient clothes be avoided.

xv. Let a flannel or woollen belt be worn around the belly.

xvi. Let personal cleanliness be carefully observed.

xvii. Let every cause tending to depress the moral and physical energies be carefully avoided. Let exposure to extremes of heat and cold be avoided.

xviii. Let crowding of persons within houses and apartments be avoided.

xix. Let sleeping in low or damp rooms be avoided.

xx. Let fires be kept up during the night in sleeping or adjoining apartments, the night being the period of most danger from attack, especially under exposure to cold or damp.

xxi. Let all bedding and clothing be daily exposed during the winter and spring to the fire, and in summer to the heat of the sun.

xxii. The following remedy is given by A. G. Craig, M. D., of Ghent, Ky., who has had extensive opportunities of observing the disease in all its stages, and who asserts that it will arrest almost every case of cholera in its *first stage:* Take of laudanum, spirits of camphor, and tincture of ginger, each four fluid drachms; tincture of capsicum, and chloroform, each two fluid drachms; pure brandy, two fluid ounces. Mix. Dose for an adult, a teaspoonful in ice-water after each movement of the bowels.

xxiii. Let the dead be buried in places remote from the habitations of the living. By the timely adoption of simple means such as these, cholera will be made to lose its venom.

1369. Polish for Patent Leather.—Take the whites of two eggs, one tablespoonful of spirits of wine, a large tablespoonful of white sugar, and as much finely-powdered ivory-black as may be sufficient to produce the necessary blackness and consistence. This should be laid on lightly with a sponge, and afterwards rubbed with a soft cloth.

1370. Mythology.—The traditions of heathen nations respecting their gods, and other fabulous supernatural beings. The heathen mythology not only was not true, but was not even supported as true; "It not only deserved no faith, but it demanded none." We give below a brief account of the principal heroes, deities, etc., in the fabulous history of Greece and Rome:

1371. Apollo.—The son of Jupiter

and Latona, commonly called Phœbus. He slew the horrid monster *Python*, and in memory of this achievement the Pythian games were established. He was the god of painting, history, music, and all the fine arts; and is usually represented with long hair, a crown of laurel leaves, and with either a bow and quiver, or a lyre. One of the seven wonders of the world was raised to his honor,—the colossal temple of Rhodes.

1372. ÆSCULAPIUS.—(*es-cu-la'-pe-us.*) The god of medicine, and son of Apollo. Exposed in infancy to save his mother's reputation, he fell under the care of Chiron, the centaur, and acquired such skill in the healing art, that it was said he could even bring the dead to life. For this power Pluto persuaded his brother Jupiter to kill him with a thunder-bolt. He is generally represented as a venerable man holding a staff, round which a serpent is sometimes coiled.

1373. AURORA.—The goddess of the morning. She is represented as sitting in a chariot drawn by four white steeds, and dispelling darkness and sleep.

1374. ÆOLUS.—The king of the Æolean Islands, and fabled as the god of winds and storms.

1375. ACHILLES.—(*a-kil'-les.*) One of the most celebrated characters of the mythic age of Greece, and the hero of "Homer's Iliad." His mother, it is said, dipped him into the waters of the river Styx, by which his whole body became invulnerable except that part of the heel by which she held him. Achilles greatly distinguished himself at the siege of Troy, where he slew Hector. At last, Paris, the brother of Hector, wounded him in the heel with an arrow, and of this wound he died. This mythical hero is supposed to have died 1183 years before the Christian era.

1376. BACCHUS.—(*bac'-cus.*) The god of wine. He is usually represented with a round and feminine contour of body; generally naked, with his hair gathered into a knot behind, and his head and locks entwined with sprigs of ivy and vine-leaves. When represented as draped, the costume is a long robe, with a nebris or deer-skin thrown over it as a mantle; his long blond hair bound with a fillet; his head crowned with ivy; and bearing in his hand the thyrsus as a sceptre. The feasts sacred to Bacchus were called Bacchanalia, or in general, Orgia. These ceremonies consisted of processions representing the triumph of Bacchus, and were attended by troops of bacchants of both sexes, who, masked and clothed in fawn-skins, and either filled with wine, or assuming intoxication, gave loose to the wildest uproar and most abandoned license.

1377. CUPID.—The god of love, and son of Venus and Zeus. He is usually represented as a beautiful child with wings; blind, and carrying a bow and quiver of arrows, with which to transpierce the hearts of lovers.

1378. CALLIOPE.—(*ka-li'-o-pe.*) A muse, and chief of the *nine*. She presided over eloquence, and heroic poetry. Calliope is sculptured as holding a trumpet in her right hand, and books in the left, signifying that her office was to take note of heroic deeds, and proclaim them to the world.

1379. DIANA.—The goddess of chastity and hunting; sister of Apollo or Phœbus, from which circumstance she is occasionally called Phebe. Actæon, one day while hunting, discovered the goddess' retreat in the cool depths of a shaded grove, where, attended by her nymphs, she took her mid-day bath in a bubbling stream. Diana, indignant that her sacred privacy should have been so profaned by mortal eyes, converted the prying prince into a stag; and his own dogs coming up at the moment, and before the metamorphosis was complete, sprung upon their struggling master, who, under the conscious agony of his situation, was torn to pieces and devoured by his ravenous dogs. Diana is sometimes represented in a chariot

drawn by two white stags; but generally dressed as a huntress with a short kirtle gathered at the waist, buskined feet, a quiver on her back, and grasping the antlers of a bounding deer with her left hand, and drawing an arrow from the quiver with her right.

1380. HERCULES.—The most celebrated hero of antiquity. He was remarkable for his great strength, and for his *twelve labors*.

1381. NEPTUNE.—The chief deity of the sea. He is represented as sitting in a boat made of a shell, which is drawn by sea-horses, or dolphins.

1382. PLUTO.—The god of the infernal regions. He is described as gloomy, selfish, and inexorable; on which account none of the goddesses would marry him; he, therefore, bore off Proserpine by force.

1383. PSYCHE.—(*si'-ke.*) The goddess of nature. She was so beautiful that all the world flocked to see her; for which Venus was jealous, and sent her son Cupid to punish her for being so fair. Cupid, however, was entranced with her beauty; fell in love with her, and made her his wife. Venus for a time imposed on her the most unpleasant labors, when Jupiter, at Cupid's request, conferred on her immortality.

1384. HYGEIA.—The daughter of Æsculapius, and goddess of health. She is represented as a virgin draped in a long robe, and feeding a serpent from a cup.

1385. HYMEN.—The son of Apollo, and god of marriage.

1386. JUPITER.—The most powerful of all the heathen deities. He is represented as sitting on a golden throne, holding in his hand thunderbolts.

1387. MORPHEUS.—The son of Somnus, and the god of dreams.

1388. MINERVA.—The goddess of wisdom, war, and the liberal arts. She is always represented with a helmet, breast-plate, and shield; and is said to have sprung from the forehead of Jupiter completely armed.

1389. VENUS.—The most celebrated of the heathen goddesses, and worshipped as the fountain of love, beauty, pleasure; and as the queen of the graces. In the contest for the golden apple, which bore the inscription, "The prize to the fairest," and for which Juno, Minerva, and Venus were competitors, the prize was awarded to Venus. She is usually represented with her son Cupid, in a chariot drawn by doves or swans.

1390. THE MUSES.—Nine daughters of Jupiter who presided over all the liberal arts, and the sciences; were the patrons of poets, musicians, etc. Clio, was the muse of history; Euterpe, of lyric poetry; Thalia, of comedy; Melpomene, of tragedy; Terpsichore, of the dance; Erato, of amatory poetry; Polyhymnia, of eloquence; Urania, of astronomy; and Calliope, of epic poetry.

1391. The Care of Horses.—The health, vigor, and lasting powers of a horse, necessarily depend upon the amount of care and attention that is bestowed upon him. In treating of this important subject, therefore, it will be as well to take each of the leading features of management into consideration, and to give definite and precise rules respecting them.

1392. BEDDING is an important duty, and cannot be too scrupulously attended to. The best bed is made of wheat-straw, but when that is dear or cannot be obtained, the straw of oats may be substituted. The more even and the less rumpled the litter, the better. The bed should be made level, or sloping slightly from the sides and head towards the centre, and be completely free from hard lumps. All ought to be smooth, clean, and soft, and the depth of the litter about seven or eight inches. Every morning the soiled litter should be taken to the dung-yard, and the clean portion separated and placed at the head of the stall, ready to be employed again at night.

1393. CLEANING THE STABLE should be performed every morning.

The floor should be thoroughly brushed and swept, and all refuse and litter removed.

1394. GROOMING AND DRESSING are important considerations, inasmuch as the skin of the horse is liable to become clogged with a scurf of dried perspiration, along with particles of dust and mud, which collect and lodge among the hairs, and which, as a matter of course, if suffered to remain, materially interfere with the animal's health and vigor. As a general rule, a horse should be groomed every morning, before he leaves the stable to accomplish his daily labor. The grooming is commenced while the animal is in his stall; the restraining rein is lengthened, to allow of his standing a little back into the gangway. If restive, his head must be tied up. All refuse having been previously removed, a little of his bedding may be drawn out, for his hind feet to stand upon. The currycomb must be used vigorously, the coat finished off by brushing, and the mane, tail, and forelock combed, so as to make all the hairs lie straight. The legs, especially if they be white, will require an occasional washing with warm soap and water, and then to be dried with a wisp of hay. The dressing of a horse after work is as necessary as the morning grooming. When a horse is brought into the stable in a state of perspiration, it should not be allowed to settle into a state of rest all at once, but be walked gently about till it becomes moderately cool. This allows the excitement of the blood-vessels and muscles to be allayed gradually, and prevents any sudden stoppage of the pores of the skin. Wisping may be resorted to, in order to assist the drying and cooling. The horse's legs and feet should then be washed with water and a brush or sponge, any spots of mud on his body removed, and the whole thoroughly dried with a fresh clean wisp. When the horse has been cleaned and dried, the cloth may be thrown over him, and he may be led into his stall. The cloth used in summer should be lighter than that employed in winter. The loins especially should be protected from cold; for in this part, horses are peculiarly sensitive. Trimming should be performed with discretion and moderation; it should be borne in mind that every hair upon the horse's body is designed to fulfil some use, and their removal to any considerable extent is calculated to prove detrimental to the health of the animal.

1395. CARE OF THE LEGS AND FEET, forms a most important branch in the management of a horse. The legs must be kept perfectly dry and clean. Dirt suffered to form a lodgment, or wet allowed to remain upon the legs in cold weather, will fret the skin, and cause cracked heels, and many other ailments. If any disposition to swellings, cracks, etc., make their appearance on the legs, particularly in winter, moderate bandaging will, in general, contribute to remove the evil. It forms a part of the constant attention to the horse to see that the feet be well cleansed beneath the shoe from all stones and gravel, at every return from abroad. This must be invariably done when the horse has been stabled for the night. Take care to observe at the same time the general condition of the feet. The shoes must be examined, that their ends do not press into the crust, that the nails be fast, and that the clinches do not rise to cut the foot. In these cases, instant application must be made to the farrier. Horses ought by no means to remain in old shoes until the foot runs a risk of being worn. In the case of brittle hoofs, however, when it is obviously advantageous to shoe as seldom as possible, the shoes may be worn for a longer interval. Where there is a tendency to over-dryness of the hoof, as well as the undue action of moisture, it is advisable to anoint the horny part of the feet with an ointment made of tar, fish-oil, and beeswax, melted together in equal proportions; but this should not be done unless it is abso-

lutely required. If well washed and kept clean, the feet will seldom require any such application. It is also prudent, when the hoofs are liable to harden and contract, to water the front part of the stall a little, and also occasionally or constantly, to hang around the hoofs an apparatus, made by doubling a circle of woollen cloth over a tape, which should be tied around the fetlocks loosely; the two segments of the cloth will then fold round the hoof, and correspond to it in shape. This may be dipped in water, and will be found admirably adapted to keep the feet cool and moist. It is considered beneficial, in general, to take off the shoes of a horse when necessitated to stand long in the stable, and doing no work, and to substitute tips; the growth of the crust, and the enlargement of the heel, being thereby promoted. The shoe of the horse must be of weight conformable to the powers and uses of the animal, also exactly suited to the curve of the hoof, flat, and of equal thickness. The operation of shoeing is most properly left to the judgment of a practical horse-shoer.

1396. The Exercise of Horses is essentially necessary to their health, as it counteracts the effects of the artificial life they are compelled to lead. The exercise should be daily, in the open air, and in the early part of the day; and when not exercised by work, the horse should be walked or trotted out on purpose. The horse that, with the usual stable-feeding, stands idle for three or four days, as is the case in many establishments, must suffer. He is disposed to fever, or to grease, or, most of all, to diseases of the foot; and if, after these three or four days of inactivity, he is ridden fast or far, inflammation of the lungs or of the feet is almost sure to follow. A gentleman's or tradesman's horse suffers a great deal more from idleness than he does from work. A stable-fed horse should have two hours' exercise every day, if he is to be kept free from disease. Nothing of extraordinary, or even of ordinary labor, can be effected on the road or in the field without sufficient and regular exercise. The exercised horse will discharge his task, and sometimes a severe one, with ease and pleasure, while the idle and neglected animal will be fatigued ere half his task is accomplished; and if he be pushed a little too far, dangerous inflammation will ensue. Exercise should be somewhat proportioned to the age of the horse. A young horse requires more exercise than an old one; but it must not be violent, and the benefit derivable from it, greatly depends upon the way in which it is given. To preserve the temper, and to promote health, it should be moderate, at least at the beginning and the termination. The rapid trot, or even the gallop, may be resorted to in the middle of the exercise, but, finally, the horse must be brought to cool. Much mischief is frequently done to horses, by the exercising of them being intrusted to boys; and, to avoid this, the owner of a horse should insist upon the performance taking place within sight, or in the neighborhood of his residence.

1397. The Watering of a Horse is a very important, but frequently disregarded portion of his general management. The kind of water has not been sufficiently considered. Soft water is preferable to hard; the latter freshly drawn from a well, will frequently roughen the coat of the horse unaccustomed to it, or cause griping pains, or materially lessen the animal's power of exertion. The temperature of the water is also a matter of the greatest consequence. It will rarely harm if taken from the pond or the running stream; but its coldness, when recently drawn from the well, often proves injurious. Water, therefore, before it is given to the horse to drink, should be exposed for some hours previously, either in the stable or in a tank. There is often considerable prejudice against the horse being fairly supplied with water. It is supposed to chill him, to injure his wind, or to incapacitate him

for hard work. It certainly would do so, if, immediately after drinking his fill, he were galloped hard, but not if he were suffered to quench his thirst more frequently when at rest in the stable. The horse that has free access to water will not drink so much in the course of the day as another who, to cool his parched mouth, swallows as fast as he can, and knows not where to stop. When on a journey, a horse may, with perfect safety, be more liberally supplied with water than he generally is. An hour before his work commences, he should be permitted to drink a couple of quarts. He will perform his task much more effectually and pleasantly than with a parched mouth, and tormented by thirst. The task or the journey being accomplished, and the horse having breathed for a few minutes, another quart of water, or even two, will be gratefully refreshing to him, and will do him no harm. His corn may then be offered to him, which he will readily take; and before he has eaten the whole of it, two or three quarts more of water may be given. Horses that are "touched in the wind" are invariably thirsty, and it is extreme cruelty to withhold water in such cases, on the plea that by exhalation they lose flesh. Such should, therefore, have a few gulps offered to them from time to time; but they should never be allowed to drink their fill on any one occasion, as the distension which would be occasioned would materially impede their respiration.

1398. The Feeding of Horses is another important consideration. In this country the chief articles of food are oats and hay; with occasionally cut straw and bran. The quantity, and also the nature of the food, will depend upon the habits of the animal, and the work to which he is put. If the work be hard, he must be fed to a considerable extent on oats, which are more nutritious than most other articles in use; but if the work be light, a lighter diet of hay, with perhaps only a small quantity of oats, will suffice. The stomach of the horse being small, he cannot eat much at a time; and it is always preferable to feed him often and at regular intervals, than to offer him large meals at irregular periods. There is another reason for offering small feeds; the horse loathes food which has been blown upon or previously touched, and will accordingly reject it, if offered a second time or allowed to stand beside him. For various reasons, therefore, it is better to give him a little only at a time, so as to leave none behind. If the animal be a poor feeder, or apt to waste his food, greater care still must be exercised in this respect. Oats ought to be sound, old, and dry; if otherwise, they must be rejected. In almost all cases it is preferable to have them bruised, for by this means they are more easily digested and nourishing than if left whole. A very general method of preparing horses' food is to mix the oats with chaff composed of the cuttings of clover and meadow hay, and the straw of wheat, oats, or barley. This mixture tends to neutralize the scouring properties which characterize bruised oats alone. A machine is usually kept for cutting this food; but, at all events, the cuttings should be about half an inch in length. Hay, clover, and meadow hay should be sound and sweet flavored, without any mustiness. The hay should, if possible, be a year old, and well preserved; if it contains much dust, it should be sprinkled with water just before feeding it.

1399. Stable Management. — The stable is an important building, as its selection, convenience, and general management greatly influence the health of the horse. The situation of the stable should always be on dry, firm, and hard ground, that in winter the horse may go out and come in clean; and, where possible, be built rather on an ascent, so that the refuse matter may run off and be easily conveyed away by drains for the purpose. The horse delights in cleanliness, and dislikes unpleasant odors; on this account no hen-roosts, pig-styes, or other

nuisances should be near the stable. The walls of a stable ought to be of brick rather than stone, and should be made of a moderate thickness, two bricks or a brick and a half at least, or the walls may be built hollow, not only for economy, but for the sake of warmth in the winter, and to keep out the heat in the summer. The windows should be proportioned in number to the extent, and made on the east and north sides of the building, that the north wind may be admitted to cool the stable during summer, and the rising sun all the year round, especially in winter. They should either be sashed or have large casements, for the sake of letting in air enough; and there should always be close wooden shutters, turning on bolts, that the light may be shut out at pleasure. Sometimes the whole of the stable is paved with stone, but occasionally that portion on which the horse has to lie, is boarded with oak planks, which should be laid as even as possible, and crosswise rather than lengthwise; and there should be several holes bored through them, to carry off the refuse underneath the floor by gutters into one common receptacle. The ground behind should be raised to a level with the planks, and be paved with small pebbles. The depth of a stable should never be less than twenty feet, nor the height less than twelve. The width of a stall should not be less than six feet clear. But when there is sufficient room it is a much better plan to allow each horse a space of ten or twelve feet, where he may be loose and exercise himself a little. This will be an effectual means of preventing swollen heels, and great relief to horses that are worked hard. With respect to the rack and manger, the former is preferable on the ground, rising three feet high, eighteen inches deep from front to back, and four feet long. The manger eighteen inches deep, eighteen inches from front to back, and five feet in length. The rack should be closed in front, as it is better adapted for saving hay. The back part of the rack should be an inclined plane, made of wood, gradually sloping towards the front, and terminating about two feet down. The advantages of this rack are numerous: in the first place, the hay is easily put into it, and it renders a hay-loft over the stable unnecessary. All the hay that is put into this manger will be eaten, whereas in the common rack it is well known that a large portion of the hay is often pulled down upon the litter and trodden upon, whereby a considerable quantity is often wasted. It prevents the hay-seed or dust from falling on the horse, or into his eyes. A great saving is also made in oats by fastening the horse's head during the time of feeding, that he cannot throw any of them out of the manger. This kind of rack and manger, from being boarded up in front, will effectually prevent the litter from being kept constantly under the horse's head and eyes, by which he is compelled to breathe the vapors arising from it. It will also prevent him from getting his head under the manger, as sometimes happens, by which means the poll-evil is frequently produced. The length of the halter should only be four feet from the head-stall to the ring through which it passes,—this will admit of his lying down with ease, and that is all that is required. The ring should be placed close to that side where the manger is, and not in the centre of the stall. The side of the stall should be sufficiently high and deep to prevent horses from biting and kicking each other. A stable thus constructed will be found conducive to the health and comfort of the horses, and will afford an inducement to the horse-keeper to attend to every little matter that can contribute to cleanliness. Neither dogs, fowls, nor goats, should ever be permitted to enter a stable; and the manure heap should be kept at a distance from it.

1400. TEMPERATURE.—The temperature of the stable is a circumstance that requires particularly to be at-

tended to. In general, there is a predilection for warm stables. Well-bred horses require a warm and genial temperature in the stables, supposing of course the air to be pure, to ensure the glossiness of coat, so essential to the beauty of the animal. But although it has this effect, a very glossy coat in winter is not desirable; nature has a tendency to proportion the degree of fineness of the coat to the season, making it a little rougher in winter than in summer. The glossiness of the coat should be more the result of careful grooming than of unnatural warmth. The bad effect of hot stables is evident from the diseases frequently occasioned by taking horses out in the open air, particularly in cold weather, when the temperature is thirty or forty degrees below that of the stable. This is often the cause of rheumatism, catarrh, or inflammation of the lungs, when horses are kept standing long in the cold, notwithstanding that exercise keeps them warm for a time. It is also generally known that a sudden return to hot stables is nearly as dangerous as the change from a heated atmosphere to a cold and biting air. No horse in the stable should sweat under his clothing; by so doing he is rendered highly sensible to external impressions from alternation of temperature, producing a morbid irritability of skin, and consequently a greater susceptibility to many diseases; it also proves a relaxant. The heat of a well-regulated stable in summer should not vary from between sixty to sixty-five degrees; nor in winter much from fifty. Some have even found the advantage of accustoming horses to a cooler atmosphere by keeping them much in the open air. It is essential to learn to distinguish between merely heated and foul air; both of these being frequently confounded under the term *close*. But air may be warm without being in the least unwholesome, and may be cold and yet very foul; the wholesomeness for respiration not depending upon the temperature, but upon the gases which compose it, and the noxious vapors with which it may be contaminated. The temperature should be ascertained by a thermometer kept in the stables.

1401. VENTILATION OF STABLES.—The air of stables is not only deteriorated by the breathing of the animals, but it is further contaminated by emanations from the body, as well as by the noxious ammoniacal vapors, arising from the refuse. These vapors are hurtful to the lungs of the horse, and still more particularly to its eyes, and are frequently the source of blindness and other diseases. The most effectual mode of managing the ventilation of stables is by having large trunks or tubes of board, about a foot square, to pass through the ceiling and roof into the open air, leaving their tops covered in such a way, that the heated air can go out, but no rain can come in. If it is impossible to send them out through the middle of the ceiling, they may be carried out just beneath it through the wall; and it will be best if there be a tube to each stall; or windows with luffer-boards, to be opened or shut as may be required, and placed at convenient situations. It is to be observed that no air can go out except an equal quantity be admitted to supply its place, as the stable must at all times be equally full of air; therefore, apertures for the admission of fresh air should be made somewhere at the lower part of the stable, where the draught will be least prejudicial. In a small stable, the bottom of the door will do for this, if a board be placed below the aperture in it slanting, so as to direct the current of air that enters upwards, instead of it coming horizontally, which might strike upon the legs of the horses. In larger stables, where more fresh air is required, numerous small apertures are better than one large one, placed in such a manner that the air cannot reach the horses in cold currents, which may be injurious to them; they should also be so contrived that the air admitted may soon mix with the rest.

1402. Lightning Rods.—Professor Henry, of the Smithsonian Institute, has given the following instructions as to the best method of constructing and erecting lightning rods:—1st. The rod should consist of round iron of from three-quarters of an inch to an inch in diameter—ordinary gas-pipe may be employed. It should be, through its whole length, in perfect metallic continuity; as many pieces should be welded together as practicable, and when other jointings are unavoidable, they should be made by screwing the parts firmly together by a coupling ferule, care being taken to make the connection water-tight by cement, solder, or paint. 2d. To secure it from rust, the rod should be coated with black paint—itself a good conductor. 3d. It should terminate above in a single platinum point, the cone of which should not be too acute, and the platinum casing at least the twentieth of an inch thick. Points of this kind can be purchased of almost any mathematical instrument-maker. 4th. The shorter and more direct its course to the earth the better; bendings should be rounded, and all acute angles avoided. 5th. It should be fastened to the building by iron eyes, and may be insulated from these by cylinders of glass, [he don't, however, consider the latter of much importance]. 6th. The rod should be connected with the earth in the most perfect manner possible. In cities, nothing is better for this purpose than to place it in metallic contact with the gas mains, or better, the large water-pipes in the street; such a connection can be made by soldering to the rod a strip of copper, which, after being wrapped several times around the pipe, should be permanently attached to it. Where a ground connection of this kind cannot be formed, the rod should be continued horizontally to the nearest well, and then turned vertically downwards until it reaches below the lowest water level. Where this arrangement is not practicable, it should terminate in a plate of iron, buried in the moist ground, some distance from the building. The rod should be bent so as to pass off nearly at right-angles from the side of the house, and be buried in a stratum of pounded charcoal and ashes. 7th. The rod should be placed, in preference, on the west side of the house, and especially on the chimney from which a current of heated air ascends in summer. 8th. When a house is covered by a metallic roof, the latter should be united, in good metallic connection, with the lightning rod or rods. A rod of this kind may be put up by an ordinary blacksmith, and is in accordance with our latest knowledge of all the facts of electricity. Attempted improvements on it are worthless, and, as a general thing, are proposed by those who are but slightly acquainted with the subject.

1403. A Substitute for Paint.—The following is a valuable recipe for an outside coating for brick or rough plastered walls, to prevent the moisture from penetrating through. It is not only a good waterproof application, but an ornamental paint for outside walls:—Take of fresh Rosendale cement three parts, and of fine, clean, sharp sand one part. Mix thoroughly with clear fresh water. This will give a granite color, dark or light, according to the color of the cement. If a brick color is desired, add Venetian red to the mixture; or, if a very light color is needed, lime may be used with the cement and sand. Care must be taken, however, to have all the ingredients well mixed together, and previous to applying the wash the walls should be made damp with clear water, to prevent the brick from absorbing the wash too rapidly. The substance must be stirred frequently during the application and applied with a brush. This cement will last for several years and best suits for brick work, but cannot be used to advantage on fence-boards, etc., which have been painted or whitewashed. For durability this wash is far superior to common lime

whitewash, and the extra cost of the cement will be but trifling over and above the ordinarily prepared limewashes, which need such repeated applications to fences and outhouses to give a nice, tidy appearance. Try it and be convinced.

1404. To what Soils is Lime applicable?—Every clay soil, every peaty soil, and every soil in which vegetable fibre does not readily decay, because that is a sign that it contains some antiseptic acid which prevents decay. This is the case in peat beds and swamps. Sandy, gravelly, or thin soils, may be over-limed and injured; because in causing the decay of vegetables, it sets free the ammonia, the very substance of fertility required. To prevent this, more food must be given for the lime to act upon. No farmer who knows what the action of lime is, upon all soils, will ever do without it, as an accessory to his manure. It is a component part of all crops grown by the farmer. When applied to lands which had not borne wheat for many years, it has at once restored it to fertility for that crop. Where it has failed once to remunerate the farmer using it, it has proved of the greatest benefit a hundred times.

1405. How to choose a Doctor.—Mr. T. K. Beecher, in the American *Bistoury*, tells us how to choose a doctor. He says:—We have read somewhere, "how to choose a wife," somewhere else, "how to buy a horse," and somewhere, too, "how to write a letter, or make a garden,"—yes, and "how to get rich," and how to do everything under the sun, except how to choose a doctor. Since we cannot find an article about how to choose a doctor, we will e'en write one. To be a doctor, one must be a man, and a mean man cannot be a good doctor, any more than he can be a good minister or a good husband. And a really honest and loving man cannot make a poor doctor, no matter what his pet *pathy* may be. To have good sense as a doctor, one must have good sense as a man. If your doctor is a nincompoop about other things, you may be sure that he is a ninny as to medicine and surgery. If your doctor's office be untidy and vile to smell of, you may be quite certain that he will come short of giving good counsel as to health and tidiness of body. If he be clumsy in hitching his horse, you may be sure he is not handy at surgery or midwifery. If he be a great, coarse, blundering fellow, and careless of dress, you may be sure he will fail to perceive those finer symptoms by which a good doctor is guided. If he slanders brother physicians, you may be sure he is a quack. Good doctors are too busy to find time to slander their brethren or their rivals. It is all the same with ministers, lawyers, and teachers. The truly good and truly great do not detract from the reputation of others; they are generous and magnanimous even to rivals. If your doctor flatters you and humors your lusts and appetites, and helps you out of a bad scrape secretly, without reproof, distrust him. If you can hire him to do or say what he would not do without the hire, beware of him. Good doctors cannot be bought. If he have a wife and children, and if you see that his wife respects him, his children obey him, that is a good sign that he may be trusted. If your doctor tells you how to keep well, that is a good sign. If the children love him, that is a good sign. If you find him reading in his office, that is a good sign—especially if he be a settled middle-aged man. If you hear him say, "I once thought so-and-so, but I was wrong," that is a good sign. If he understands how to bud roses, graft fruit-trees, mix strawberry pollen for improved berries; cure chicken pip, and tinker a trunk-lock, or put a sewing-machine in order, all these are so much to his credit. If, further, you love to meet him, are glad to hear him chat, and you know him to be a lovable sympathetic man—he's the man for your doctor, your confidential friend—find him, trust him.

1406. Cause and Cure of Smoky Chimneys.—Smoky chimneys result from a variety of causes. The wind may be let in too freely above, or the smoke stifled below; the vent may also be too contracted, particularly where several open into the same funnel. The situation of a house may also affect the chimneys, especially if backed by higher ground or loftier buildings. In many cases the remedy for smoky chimneys is of the most simple kind, but the first step is to ascertain the cause of the defect. The following are some, among many others: A single chimney is more liable to smoke than when it forms part of a stack. A northern aspect often produces a smoky chimney. Large fireplaces are apt to smoke, particularly when the aperture of the funnel does not correspond in size; for this a temporary remedy may be found in opening a door or window—a permanent cure by diminishing the lower aperture. When a smoky chimney is so incorrigible as to require a constant admission of fresh air into the room, the best mode is to introduce a pipe, one of the apertures of which communicates with the open air, and the other terminates underneath the grate; or openings may be made near the top of the apartment, if lofty, without any inconvenience even to persons sitting close by the fire. Where a chimney only smokes when a fire is first lighted, the defect may be guarded against by allowing the fire to kindle gradually: or more promptly by laying any inflammable substance, such as shavings, on the top of the grate; the rapid combustion of which will warm the air in the chimney, and give it a tendency upwards before any smoke is produced from the fire itself. Sometimes the fault lies in the grate not being placed *true* to the mouth of the chimney; this should be ascertained, and the grate set more backward or forward, as the case may be. The shortness of the funnel or the chimney may produce smoke; in this case the lower orifice must be contracted to as small dimensions as possible by means of an upright register. If a kitchen chimney overpowers that of the parlor, as is often the case in small houses, apply to each chimney a free admission of air until the evil ceases. When a chimney is filled with smoke, not of its own formation, but from the funnel next to it, cover each funnel with a conical top, or earthen crock; by means of which the two openings are separated a few inches, and the cold air or the gusts of wind cease to force the smoke down with them. If these remedies fail, it will be generally found that the chimney only smokes when the wind is in a particular quarter; the following is then the best remedy to adopt:—Put on the top of the chimney a box, in each of the sides of which is a door hanging on hinges, and kept open by a thin iron rod running from one to the other, and fastened by a ring in each end to a staple. When there is no wind these doors are at rest, and each forms an angle of forty-five degrees, which is decreased on the windward side in proportion to the force of the wind, and increased in the same ratio on the leeward side. If the wind be very strong, the door opposed to it becomes closed, whereby the opposite one is opened to its utmost width. If the wind shakes the corner of the box, it shuts two doors, and forces open those opposite. This scheme is infallible; the expense is trifling, and the apparatus simple.

1407. To Detect Sulphuric Acid in Vinegar.—The simplest way of detecting sulphuric acid in vinegar, says the *Scientific American*, is to add a few drops of baryta water, when the liquor, if sulphuric acid be present, will become cloudy—sulphate of baryta being formed, which is insoluble. As baryta is poisonous, the experiment should be made with a small quantity. Every druggist keeps or ought to keep baryta water.

1408. Moth Powder.—Take of lupulin (flour of hops), 1 drachm;

Scotch snuff, 2 ounces; camphor gum, 1 ounce; black pepper (ground), 1 ounce; cedar saw-dust, 4 ounces. Mix thoroughly, and strew among the furs and woollens to be protected.

1409. A Quick Method of Preparing Skeleton Leaves.—We have already given the usual method of preparing these interesting and beautiful objects, (1230,) but the following plan, given by a correspondent of the *Druggists' Circular*, will prove of value where time is an object: A solution of caustic soda is made by dissolving three ounces of washing soda in two pints of boiling water, and adding one ounce and a half of quick lime, previously slaked. Boil for ten minutes, strain off the clear solution, and boil again. The leaves are now to be put in, and boiled briskly for some time,—say from half an hour to an hour,—occasionally adding hot water to supply the place of that lost by evaporation. Take out a leaf and put it into a vessel of water, and while there rub it with the fingers. If the epidermis and parenchyma separate easily, the rest of the leaves may be removed from the lye and treated in the same way; but if not, then the boiling must be continued until they will. To bleach the skeletons, mix about a drachm of hypochlorite of lime (bleaching powder) with a pint of water, adding sufficient acetic acid to liberate the chlorine. Steep the leaves in this until they are whitened —about ten minutes—taking care not to let them stay in too long, otherwise they are apt to become brittle. Put them into clean water and float them out on pieces of paper. Lastly, remove them from the paper before they are quite dry, and place them in a book, or arrange them in the form of a bouquet.

1410. Preparation for Waxing Floors.—Floor polish is to be regarded as a species of soap, the wax of which behaves differently from fat. Wax is composed of two substances, *cerine*, which saponifies, and *myricine*, which does not saponify in ordinary lye. By boiling the wax with potash the one constituent dissolves while the other remains insoluble. The difficulty in preparing a good waxing soap is to keep the myricine in a fine state of division throughout the mixture. Professor Nessler proposes the following plan by which a good article can be made in a few minutes: 50 grammes purified potash (carbonate of potash), 2 decilitres of water, and 250 grammes of wax are boiled together in a suitable vessel under constant stirring. A thick, viscous mass results, which must be boiled until it is perfectly homogeneous, and when taken from the fire, no longer separates into layers of water. Two or three minutes' boiling is usually sufficient. The vessel is then to be removed from the fire, and the thick mass carefully diluted with water. At first a few drops of water are to be stirred in, afterwards more boiling water, and the whole thoroughly agitated until no water is visible in the fatty liquid. The vessel is then again put on the fire and its contents vigorously stirred, but it must not be brought to a boil after water has been added. Four to four and a half litres hot water is usually found to be the proper proportion for the above quantity of wax. The coloring matter to be introduced depends upon circumstances. Yellow is produced by yellow ochre; brown, by umber; red, by English red; all of which must be in a state of fine powder. They are first stirred up in water, then cautiously added. Glue is not essential to the preparation, but sometimes adds to its value; the proper proportion of which, for the above quantity of material, is 15 grammes, which must be dissolved in water and cautiously introduced. For polishing the floor after putting on the wax, a broad brush fastened to the bottom of a box into which weights can be put, and furnished with a long handle, is found to be the best instrument.

1411. Mirrors.—To the inherent vanity of the human race must doubtless be attributed the invention of artificial mirrors. In the primitive ages of the world, tranquil lakes and springs furnished natural reflecting surfaces for the gratification of this passion, but advancing civilization suggested a more convenient agent for its indulgence. The introduction of mirrors is ascribed to the Egyptians, with whom originated so many appliances of convenience and luxury. For many centuries mirrors were manufactured from the various metals, skilfully elaborated and highly polished. They were fashioned into spherical shapes, and united to handles highly finished, either with attractive representations, or with frightfully repulsive figures, which would, by contrast, heighten the observer's features. It is said that such was the inordinate vanity of the ancient Greeks and Romans, that even the interior surfaces of their washing basins and drinking vessels were highly burnished. In process of time tin and lead were combined with copper in their construction, and subsequently silver was substituted. In the fourth century B. C., mirrors manufactured from silver were in general use among the Greeks and Romans, and constituted an extensive branch of industry. They were usually of such dimensions as could be conveniently held by servants before ladies and gentlemen while attiring themselves, although allusions are frequent to mirrors sufficiently large to extend from the ceiling to the floor of an ordinary apartment. About the middle of the thirteenth century, iron, steel, glass coated with lead, and even highly polished marble, were used as reflecting surfaces for mirrors. In the sixteenth century convex glass mirrors were manufactured in Germany, which reflected a very small, but well-defined image. In this century, also, the Venetians introduced the art of manufacturing mirrors by coating glass with a composition of tin-foil and mercury, and so successful was their enterprise that, at the present day, the process invented by the artists of Venice still holds its place.

1412. To keep Ice in Summer.—No refrigerator or ice-box will prevent or even retard the melting of ice, which does not combine the following conditions:—First, it must have double sides, bottom, and lid, with the spaces between the two filled with some non-conducting substance, in order to exclude the external heat. Second, the lid should be as near air-tight as possible; for if external air enters, it will bring its own temperature with it. There should also be a drain-pipe at the bottom to carry off, instantly, every drop of water formed by the melting of the ice, and this pipe should be either fitted with a "trap," or curved in such a manner as to prevent air from coming in, where the water goes out. It is even more indispensable to carry off every drop of the water than it is to exclude the air. This may be demonstrated as follows: Wrap a piece of ice weighing, say, twenty-five pounds, in three or four thicknesses of flannel, and place it in a small tub, where, as the water filters through the flannel it will stand in it, and it will all be dissolved in five or six hours. Wrap the same amount of ice in flannel and place on a grating, or on four cross sticks, so that no water can accumulate underneath it, and at the end of three days it will not have entirely melted.

1413. Why Lace is Costly.—The manufacture of lace is carried to its highest perfection in Belgium. The finest specimens of Brussels lace is so complicated as to require the labor of seven persons on one piece, and each operative is employed at distinct features of the work. The thread used is of exquisite fineness, and is spun in dark, underground rooms, where it is sufficiently moist to prevent the thread from separating. It is so delicate as scarcely to be seen, and the room is so arranged that all the light admitted shall fall upon the work. It is such

material that renders the Brussels ground so costly. On a piece of Valenciennes not two inches wide, from two to three hundred bobbins are sometimes used, and for the larger widths, as many as eight hundred on the same pillow. The value of Valenciennes is determined by the number of times the bobbins have been twisted in making the ground; the more frequent the twists, the clearer and more beautiful will be the lace. Belgium sells annually of this lace alone over $4,000,000 worth. Chantilly lace is always black, and is used chiefly for veils and flounces; it is very fine, and is extensively worn. Mechlin lace is made principally at Mechlin and Antwerp.

1414. Origin and Signification of Names.—Names were first used among men for distinction. The Jews gave names at their circumcision, the Romans on the ninth day after their children's birth, and the Christians at their baptism; which names were generally intended to denote the future good wishes or hope of parents toward their children. The ancient Greeks attached great importance to names. Pluto recommends parents to be careful to give happy ones to their children, and the Pythagorians taught that the minds, actions and success of men were according to the appellations they bore. The Romans, also, seem to have been impressed with the same idea. All names were originally significant, and were always bestowed by the ancients with reference to their well-understood meaning. Sometimes they were commemorative of some incident or circumstance connected with the birth of the individual bearing them: as, Thomas, *a twin;* Maius, *May* (applied to one born in that month); Septimus, *the seventh.* In other cases they were expressive of the aspirations, desires, or hopes of the parents: as, Victor, *one who conquers;* Probus, *truthful;* Felix, *happy;* Benedict, *blessed.* Not unfrequently they were descriptive of personal qualities: as, Macros, *tall;* Pyrrhus, *ruddy;* Rufus, *red-haired.*

Names are as significant now as they were in the days of Plato, and as important, but we ignorantly or carelessly misapply them, making of them the most absurd misnomers. "A man with the name of George or Thomas," as Leigh Hunt very justly observes, "might as well, to all understood purposes, be called Spoon or Hat-band!" Blanche is now anything but the flaxen-haired *blonde* which her name indicates. Isabel is no longer *brown.* Cecilia (*grey-eyed*) belies her name, and "lets fly the arrows of love" from orbs of heavenly blue. Rebecca, who ought to be somewhat *embonpoint,* "rounded into beauty," as the poet hath it, is perhaps a slender, lily-like maiden, better suiting the name of Susan. As thus misapplied, our personal nomenclature is worse than meaningless. We should deem the person either hopelessly insane or unpardonably ignorant, who should, in science or in business, thus misuse well-understood terms.

We are not disposed to enter the domain of the abstract, and show that there is an inherent fitness in names for persons and things; a correspondence between the word-symbol and the object which it was originally intended to represent, intuitively recognised by the soul, though perhaps not fully comprehended. Our design is a more practical one.

Ada is well known as the name of Byron's only daughter. It is from the Saxon (*Edith, Eadith,* or *Eade, Ada*), and signifies *happy.*

Adelaide is of German derivation, and has the meaning of a *princess.*

Adeline is only a different form of the same name.

Agatha, *good,* is from the Greek. To be worthy of this name, indicative as it is of all the virtues, is an object which may well enlist the highest ambition of the fair ones who bear it, whether maidens or wives.

Agnes, *chaste,* is also from the Greek, and is one of the best names in use

among us. None but pure, gentle, and loving beings, it would seem, should bear it; but in one case, at least, it has belonged to one in whom the heroic predominated over every gentle sentiment: *Black Agnes*, of Dunbar, who, as the reader of history will recollect, kept her husband's castle, like a lioness, against his enemies.

Alfred is Saxon, and signifies *all-peace*. It is a good name, and should be a favorite among us, boasting as we do of our Saxon descent, and tracing some of our free institutions to the great and good king who bore it "in the olden time."

Alicia, or Alice, is from the Latin, and has the meaning of *noble*. It is one of the sweetest of our female names.

Alphonso is said to be the Spanish form of the ancient Gothic *Elfans, our help*. It is a euphonious name, but is now seldom used.

Amelia, or Amelie (French, Aimée), signifies *beloved*. Amy, or Amie, and Emily, have the same derivation and meaning. Our vocabulary contains no sweeter or more *lovable* name. Happy is she who bears a name pregnant with such sacred significance, and happy the man who is privileged to whisper it in her ear as the highest word of endearment. Amiée, beloved! The reader will recollect, in connection with this name, that dark page in the romance of history which records the sad fate of Amy Robsart.

Anna, or Annie (Hebrew, Hannah), signifies *kind* or *gracious*.

Arabella (French, Arabelle), is of Latin derivation, and has the meaning of *beautiful altar*. Before no place of sacrifice bend devouter worshippers.

Augustus, *increasing*, is from the Latin, and signifies that those who originally bore it continually grew in power and honor. It has been a favorite name in kingly and princely palaces, but princes have no monopoly of it. Its feminine form is Augusta.

Baldwin, a *bold winner*, is a fine name of the old Saxon stock.

Barbara is of Latin derivation, and signifies *strange* or *foreign*. Its mention recalls to our minds the melancholy fate of Jemmy Grove, of ballad memory, who died at Scarlet Town of a broken heart (poor fellow!),

"For love of Barbara Allen!"

Basil, *kingly*, is of Greek origin. It can hardly be a popular name in these republican times.

Beatrice is *one who blesses* or *makes happy*. Blessed (Benedict) is he on whom she smiles. No name can be more appropriate for a lovely and affectionate woman. Dante immortalized it, and Shakspeare and Shelley have thrown around it the charm of their numbers. It is derived from the Latin. Why is it not more frequently used?

Benjamin, *son of the right hand*, is a fine old Hebrew name, and has been borne by men of renown, among whom were Jonson and Franklin.

Bertha, *bright* or *famous*, is a fine name of Greek origin, and should be more common.

Bianca is the Italian form of Blanche, which, as I have already hinted, has the meaning of *white* or *fair*. It is a sweet name in both forms, and should be fittingly bestowed.

Calista, from the Greek, is *beautiful*.

Catherine, or Katharine, derived from the Greek, is *pure* or *chaste*, and is one of the best of our female names. In the Irish it becomes Kathleen, and in the Flemish, Kateline. A pretty diminutive of Catherine is Katharina; but I like it best in its familiarised form of Kate. Who ever knew a Kate who was not frolicsome, mischievous, and saucy? The name of Catharine, disgraced by her of Medici, was honored by the noble but unfortunate queen of Henry VIII., whom the pen of a Shakspeare and the voice of a Siddons have immortalised.

Charles: some etymologists derive this illustrious name from the German *kerl;* Anglo-Saxon *ceorl* or *churl;* a term denoting rusticity, and quite opposed to every idea of nobility. Its real origin may probably be found in the Sclavonic *krol*, a king. Thus: Krol,

Korol, Karolus, Carolus, Charles. Krol may have come from the Latin *corona* or *corolla*, a crown. Charles, then, is a king, or one who is crowned. This seems an appropriate signification for a name which has been borne by so many kings and emperors. Charles sometimes occurs in this country in the Spanish form, Carlos. Charlotte is one of the feminine forms of Charles, and, if we accept the foregoing etymology, signifies *a queen*. Those who derive the name from the German, give it the signification of *prevailing*. I have no quarrel here with the etymologist. All Charlottes may be queens of love, and being queens must prevail over the hearts of men. Charlotte Corday will be remembered as one not unworthy of so brave a name. In the home-circle and among her companions, Charlotte lays aside her queenship, and becomes gentle Lottie. Caroline is the feminine of Charles, in another form, and of course has the same meaning as Charlotte. It is another noble and queenly name, and has been borne by many a noble woman. Caroline assumes the familiarised or pet forms of Carrie, Callie, Caro, and Cal.

Clara, *clear* or *bright*, is from the Latin. It is a very pretty name, and is immortalised in one of the best of Scott's novels, "St. Ronan's Well." Clarissa is from the same root, as is Claribel, *bright* and *beautiful*.

Daniel, *a judge*, is from the Hebrew.

David, also from the Hebrew, signifies *well beloved*.

Deborah, signifying *a bee*, is another good but rather homely name from the Hebrew stock.

Earine, *vernal*, a name immortalised by Ben Jonson, should certainly be revived.

Edward is a *truth-keeper*. The name is of Saxon derivation, and is surrounded by rich historical associations. Its French form is Edouard.

Edwin, *happy winner* (*bonum nomen, bonum omen*), is also from the Saxon.

Eleanor (Fr., Eleanore), is of Saxon derivation, and signifies *all-fruitful*.

Emma, *tender, affectionate* (literally, one who nurses, cares for, watches over another), is of German origin. Who could desire his mother, his sister, or his beloved, to bear a sweeter or a better name? Under the form of Imma it was honored by Charlemagne's fair daughter, whose love-history, in connection with Eginhard, her father's secretary, forms one of the prettiest episodes in the chronicles of the time. Emmeline is simply a diminutive of Emma.

Erasmus is from the Greek, and signifies *worthy to be loved*.

Ernest, *earnest*, is derived from the German. Its feminine form is Ernestine.

Eugene, *nobly descended*, is of Greek derivation. In the feminine, in which it ought to be oftener used, we give it the form of Eugenia.

Everard is a good name from the German stock, and has the meaning of *well-reported*.

Francis is of German origin, and signifies *frank* and *free*. It is one of our finest names. Frances, of which Fanny is the familiarised or pet form, is the feminine.

Frederick, *rich peace*, is another German name of historical importance. Frederick, the grenadier King of Prussia, was not particularly well named.

George, *a farmer*, is from the Greek. It should be a very common name in agricultural communities. It has been borne by kings, and by one, at least, who was greater than any king—Washington. Georgia, Georgette, and Georgiana, are its feminine forms.

Gertrude is from the German, and, according to the etymology usually given, signifies *all-truth;* but Jung-Stilling, in his Pneumatology, gives it a very different meaning. Speaking of the Druids, he says:—"Into this mysterious, spiritual order, old women were also received, who, by this means, attained to considerable rank, and became priestesses. Such individuals then received the title of *Haxa*—Dru-

idess. Both these names were, at that time, honorable appellations; they are now the most disgraceful terms of reproach. The name of Gertrude, or Gertrudis, is probably also derived from this source, and ought reasonably to be disused, for it has the same meaning as the word *haxa* or *hexe, a witch.*" Well, this may be true, for Gertrudes are generally very *bewitching.*

Grace, *favor*, is from the Latin. Well may it be a favorite name.

Helen (Latin, Helena; French, Helene), is of Greek origin. The true signification of it seems to be one of those *vexatæ questiones* which abound in etymological discussions. According to one it has the meaning of *alluring;* another makes it signify *a taker*, or *one who seizes;* while a third defines it as *one who pities.* I am inclined to endorse the last. Many a poor unfortunate lover has found Helen *alluring*, and has finally been taken, *seized*, conquered by the *prestige* of her bright eyes and sweet voice. Happy is he who finds her *one who pities*, for pity is akin to love. Ellen is only a different form of the same name. It is often contracted to Nellie and Nell, and is a fine name in all its forms.

Henry, *rich lord*, is of German derivation. It has been borne by many kings, noblemen, and patriots. In its familiarised form it becomes Harry. Its feminizations are Henrietta, Henrica, and Harriet, who, since they cannot be rich lords, should be rich ladies.

Isabel (French, Isabelle; Spanish, Isabella), signifies *olive-complexioned*, or *brown.* This is just the name for a "bonny brunette." There is a silvery bell-like music in the name, which is exceedingly attractive, and which has made it a favorite with poets.

James (in the French, Jacques; Spanish, Jayme; Italian, Giacomo; Scotch, Jamie), comes from the old Hebrew stock, and is generally supposed to be the same as Jacob, and to signify a supplanter.

John is generally supposed to be from the Hebrew, and to signify *gracious:* but Talbot traces it, as he thinks, to the Latin *juvenis, a young man.* In the Italian, it is Giovanni; in the Spanish, Juan; and in the French, Jean. It has been borne by some of the greatest men that the world has ever produced. It was the name of Milton, Hampden, Locke, Dryden, Howard, Molière, Boccaccio, Hancock, Adams, Calhoun. Shakspeare bestowed it upon one of his best characters, the fat knight who was wont to subscribe himself, "Jack Falstaff with my familiars; John with my brothers and sisters; and *Sir John* with the rest of Europe." The name is a great favorite with the very respectable and somewhat numerous family of Smiths; and probably the most noted of all the Johns, ancient or modern, is John Smith. The commonness of the name is the only valid objection to it. It has ceased to be sufficiently distinctive, and one sympathizes with the lament of an unfortunate bearer of the ancient and honored but much-abused name. The English are prone to convert John into Jack, and the Scotch into Jock, neither of which is either elegant or genteel.

Judith, from the Hebrew, signifies *praising.*

Julius, *soft-haired*, is of Latin origin. Julia, Julietta, Juliet, and Juliana are feminizations of Julius, and should wear on their queenly heads "soft and silken tresses." Julia needs no eulogist, since she is one whom the poets have immortalized. Julietta, or Juliet, is a diminutive of Julia; "but has," as Talbot remarks, "apparently united itself with another name, Joliette, the diminutive of *jolie, pretty.*"

Letitia, *joy*, is one of the happiest as well as the sweetest of names. The woman we love should be "a joy for ever" to our hearts. It is a good old Roman name.

Leonard is from the German, and signifies *lion-like.*

Mabel is probably from *ma bella, my fair*, though some think it a contraction of *amabilis, lovely* or *amiable.* The

fair ones who bear it have no reason to complain of either derivation.

Madeleine (Syriac, Magdalene), *magnificent*, is a noble name, and a favorite with the poets.

Margaret, *a pearl*, is from the Latin, *margarita*. Another, and, if possible, a more beautiful signification has curiously enough attached itself to this name. The German word *magd*, a maid, was anciently written *magete* and *maghet*, which words were easily confused with Madge and Maggie, and thus with Margaret. Daisies were also called *maghets*, maids or *margarets*, whence we have the French *marguerites*, daisies. Margaret, then, may be a *pearl* or *daisy*, as she chooseth; or she may, if she will, combine the beauty and purity of both, in her life and character, and thus prove herself worthy of her doubly significant name.

Martha is a pleasant name from the Hebrew, but is unfortunate in its signification, meaning *bitterness!*

Mary. This sweetest of all female names is from the Hebrew, and has the meaning of *exalted;* a truly appropriate signification. It is a famous name, both in sacred and in profane history. In all ages it has literally been exalted. From Mary the mother of Jesus, to Mary, the mother of Washington, the glory has not departed from the name. It has been linked with titles and power, with crowns and coronets, and adorned by goodness and beauty. It has ever been a favorite with the poets. Byron, as he assures us, felt an absolute passion for it. It is inwoven with some of his sweetest verses. It is still the theme of bards and bardlings innumerable. In the French, Mary becomes Marie. Maria is another form of it.

Matilda is from the Greek, and signified *noble* or *stately*.

Miranda, *admired*, is from the Latin.

Nancy, it is believed, may be traced to the same source as Anna and Hannah, which have the same signification, *kind* or *gracious*.

Oliver is from the Latin word *oliva*, an olive-tree, and is thus significant of *peace*. Olivia and Olive are its feminine form.

Phœbe is a bright and beautiful name; one full of the happiest significance. Phœbe, *light of life!* What more or better can a lover or husband desire? Those who have read Hawthorne's "House of the Seven Gables," (and who has not?) will here call to their minds the sweet-tempered, cheerful, and warm-hearted country-maiden who brought the sunshine and the fragrance of the fields with her, to enliven and purify the dark, damp, and mouldy old mansion of the Pyncheons. She was rightly named Phœbe.

Philemon is *one who kisses*. I think it is of Greek derivation.

Philip, *a lover of horses*, is from the Greek.

Rose (Latin, rosa), *a rose*, is sweet enough for the name of a fairy, or an angel. There is a veritable fragrance in it. It calls up visions of garden-arbors and embowering shrubs and vines.

Rosabel (Italian, *rosa-bella*), is from the same Latin root, but comes to us from the Italian. It signifies fair or beautiful rose. Rosalie (French, *rose et lis*), rose and lily, combines the fragrance and beauty of two lovely flowers. Rosalind: it is enough to say of this name that it is one of Shakspeare's immortalized appellations. The termination, *lind*, may have been coined by him simply for the sake of euphony, or it may have been derived from the Spanish *linda*, neat or elegant (*rosa linda*, elegant rose). Rosamond is one of the prettiest names of the rose family. The derivation of the last part of the word is somewhat doubtful. Perhaps it is from *mundi* (French, *monde*), and perhaps from the German *mund*, the mouth; so that Rosamond may have originally been *Rosen-mund*, or rosy mouth; but Talbot thinks that it is from the Spanish *rosa montis*, rose of the mountain, that is, the pæony.

Richard is from the Saxon, and signifies *rich-hearted*, or, according to another etymology, *richly honored*.

Robert, otherwise Rupert or Ruprecht, appears to come from the old Anglo-Saxon words *ro* or *ru*, red, and *bart*, beard, *red-beard;* so says Talbot: others assert that it is from the German, and signifies *famous in counsel*. The feminines are Roberta and Bertic.

Romeo, *a pilgrim*, is from the Italian.

Ruth is from the Hebrew, and signifies *a trembler*. It is a pretty name, but is seldom used.

Sarah, *a princess*, is from the Hebrew. In poetry and in familiar address it takes the form of Sally or Sallie, and is found in many a love-song and ballad.

Sophia, *wisdom*, is from the Greek.

Susan, is of Hebrew origin, and has the meaning of a *lily*. In its familiarised or pet form it becomes Sue. It is a very pretty name, and is immortalised in Gay's well-known ballad in which its signification is very happily introduced into the closing line.

Theodore is a fine euphonic name from the Greek, and signifies *gift of God*. Its feminine is Theodora.

Viola, a *violet*, is derived from the Latin. For a pure, modest, bashful maiden, what name could be fitter?

Walter is of German origin, and signifies a *woodman*.

William is of German derivation, and signifies *defender of many*. "This name," says Verstegan, the distinguished French antiquary, "was not given anciently to children, but was a title of dignity imposed upon men from a regard to merit. When a German had killed a Roman, the golden helmet of the Roman was placed upon his head, and the soldier was honored with the title of Gild-helm, or golden helmet, and was hailed as a defender." With the French the title was Guildhaume, since Guillaume. The German form of William is now Wilhelm. Wilhelmine and Willamette are feminine forms of the name. Those who bear them, since they cannot be expected to occupy the post of defenders, may well take, as the signification of their names, worthy to be defended.

1415. Presidents of the United States—1789 to 1873.

George Washington, 1789 to 1797, 8 years.
John Adams, 1797 to 1801, 4 years.
Thomas Jefferson, 1801 to 1809, 8 yrs.
James Madison, 1809 to 1817, 8 years.
James Monroe, 1817 to 1825, 8 years.
John Q. Adams, 1825 to 1829, 4 years.
Andrew Jackson, 1829 to 1837, 8 years.
Martin Van Buren, 1837 to 1841, 4 yrs.
Wm. Henry Harrison, 1841, died one month after his inauguration, when the Vice President elect,
John Tyler became acting President for the unexpired term of 4 years.
James K. Polk, 1845 to 1849, 4 years.
Zachary Taylor, 1849, died July 9th, 1850, when the Vice President elect,
Millard Fillmore became acting President for the unexpired term of 4 years.
Franklin Pierce, 1853 to 1857, 4 years.
James Buchanan, 1857 to 1861, 4 yrs.
Abraham Lincoln, 1861 and 1865, was assassinated, April 14th, 1865, when the Vice President elect,
Andrew Johnson became President for the unexpired term of 8 years.
Ulysses S. Grant, 1869 and 1873, 8 yrs.

1416. The Art of Life.—Life is an art. When we consider what life may be to all, and what it is to most, we shall see how little this art is yet understood. What life may be to all is shown us in the lives of the honored few whom we have learned to distinguish from the rest of mankind. What life is to most is seen wherever we turn our eyes. To all life may be freedom, progress, success. To most men it is bondage, failure, defeat. Some have declared all life to be a tragedy. The life of most men is rightly so termed. What can be more tragical than after long years of weary watching and ceaseless toil, in which all the joy and strength of our days had been wasted in pursuit of some distant good, to find, at last, that the good thus sought was a shadow—a sham; that the sum total of our endeavor, with no positive increase, has left us minus our youth,

our faculties, our hope, and that the threescore years have been a lifelong illusion? Such is the actual condition of mankind. Look at our educated men. Of the hundreds whom every year sends forth to wander in the various paths of active life, how many are there who find the bread that alone can satisfy the hungering, dreaming heart of man? How many sell their strength and waste their days, and "file their minds," in the pursuit of some vain object, or some phantom which they term a competence, or at best, some dream of fame; and find, when the race is done, and the heat is won, that they are no nearer than before the true end of their being, and that the great work of life is still to do!

"I respect the man," says Goethe, "who knows distinctly what he wishes. The greater part of all the mischief in the world arises from the fact that men do not sufficiently understand their own aims. They have undertaken to build a tower, and spend no more labor on the foundation than would be necessary to erect a hut." Is not this an exact description of most men's strivings? Every man undertakes to build his tower, and no one counts the cost. In all things the times are marked by a want of steady aim and patient industry. There is scheming and plotting in abundance, but no considerate, persevering effort. The young man launches into life with no definite course in view. If he goes into trade, he has perhaps a general desire to be rich: but he has, at the same time, an equally strong desire for present gratification and luxurious living. He is unwilling to pay the price of his ambition. He endeavors to secure the present, and lets go the future He turns seedtime into harvest, and eats the corn which he ought to plant. If he goes into professional life, he sets out with a general desire to be eminent, but without considering in what particular he wishes to excel, and what is the price of that excellence. So he divides his time and talents among a great variety of pursuits; endeavoring to be all things, he becomes superficial in proportion as he is universal, and having acquired a brief reputation, as worthless as it is short-lived, sinks down into hopeless insignificance. Most things that man desires may be had for a price. The world is truer to us than we are to ourselves. In the great bargain of life no one is duped but by his own miscalculations, or baffled but by his own unstable will. If any man fail in the thing which he desires, it is because he is not true to himself, he has no sufficient inclination to the object in question. He is unwilling to pay the price which it costs. On all hands man's existence is converted into a preparation for existence. We do not properly live in these days, but everywhere are getting ready to live; like that king of Epirus who was all his lifetime preparing to take his ease, but must first conquer the world. The end is lost in the means. Life is smothered in appliances.

The work of life, so far as the individual is concerned, and that to which the scholar is particularly called, is *self-culture*—the perfect unfolding of our individual nature. To this end, above all others, the art of which we speak directs our attention and points our endeavor. There is no man, it is presumed, to whom this object is wholly indifferent, who would not willingly possess this, too, along with other prizes, provided the attainment of it were compatible with personal ease and worldly good. But the business of self-culture admits of no compromise. Either it must be made a distinct aim, or wholly abandoned. The price is a single devotion to that object; a devotion which shall exclude all aims and ends that do not directly or indirectly tend to promote it. In this service let no man flatter himself with the hope of light work and ready wages. The work is hard, and the wages are slow. Better pay in money,

or in fame, may be found in any other path than this. The motives to engage in this work are its own inherent worth, and the sure satisfaction which accompanies the consciousness of progress in the true direction toward the stature of a perfect man. Much that he has been accustomed to consider as most desirable he will have to renounce. Much that other men esteem as highest, and follow after as the grand reality, he will have to forego. No emoluments must seduce him from the rigor of his devotion. No engagements beyond the merest necessities of life must interfere with his pursuit. He must consent to see younger and smaller men take their places above him in the world. He must become a living sacrifice, and dare to lose his life in order that he may find it.

1417. Languages and Alphabets.—It is said that the various nations of the earth speak about eighty-eight different dialects, but these can be traced to a much smaller number of languages, which again are all referred by philosophers to three classes: 1. The Indo-Germanic, embracing the ancient classical languages as well as those of modern Europe; 2. The Sanscrit, embracing all the varieties of India; 3. The Semitic, including Hebrew and Arabic.

Of languages, the Hebrew is the oldest and most poetic, the Latin the most copious and sonorous, the Greek the most expressive and sublime. These three are generally called the dead languages.

Modern Languages.—The Chinese is the most difficult, the Italian the softest, the Spanish the most pompous, the French the most polite and passionate, and the English the most copious and energetic.

The English contains 26 letters; French, 25; Hebrew, Chaldee and Syriac, 22; Greek, 24; Latin, 25; Spanish, 27; Italian, 20; Arabic, 28; Persian, 31; Turkish, 33; Georgian, 36; Coptic, 32; Muscovite, 43; Selavonic, 27; Dutch, 26; Ethiopic, 222; Tartarian, 222; Bengal, India, 21; Brachman, 19; Sanscrit, 28.

The French language has about 32,000 words; the Spanish 30,000; and the Italian, 35,000.

The English language consists of above 40,000 words, and is continually increasing its stock. It is said to contain about 20,000 Saxon words, with 9000 of Latin or Norman origin, and about 1500 of Greek derivation, together with German, Welsh, Spanish, Danish, Arabic, Hebrew, etc.

In English, the scientific words are mostly from the Greek; terms of art from the French, Latin and Italian; and names of places and rivers and most of the particles from the Saxon.

1418. Discoveries, Inventions, etc., etc.

Aqueducts were first constructed by Appius Claudius, about 453 B. C.

Arithmetic is said to have been introduced from Egypt into Greece by Thales, 600 B. C. Notation by nine digits and zero, known at least as early as the sixth century in Hindostan—introduced from thence into Arabia, about the year 900—into France, in 991—into Spain, 1050—into England, 1225.

Backgammon. This game was invented at Greece, about 1224 B. C.

Bank. The name is derived from *banco*, a bench, erected in the market place for the exchange of money. The first bank was established in Italy, A. D. 808, by the Lombard Jews. The Bank of England was chartered July 27th, 1694, capital, £1,200,000.

Barometer, invented by Torricelli, in 1535.

Bomb-shells were invented in 1495.

Bottles were first made in England, of glass, in 1558; but the art was known to the Romans before A. D. 79, for these vessels have been found in the ruins of Pompeii.

Calico. This well-known cloth is named from Calicut, a city of India. Calico was first used in England in 1631.

Camera Lucida. Invented by Dr. Hooke, about 1674. The camera obscura was invented by Roger Bacon, in 1297.

Cannon are said to have been used as early as A. D. 1338.

Cards. Playing cards were invented in France, about the year 1390, to amuse Charles VI. during the intervals of a melancholy disorder.

Carpets. In the twelfth century carpets were articles of luxury, and in England, it is mentioned as an instance of Becket's splendid style of living. That his apartments were every day strewn with clean straw or hay. The manufacture of woollen carpets was introduced into France from Persia, in the reign of Henry IV., between 1589 and 1610.

Carving in wood, stone, and brass. We have scriptural authority for its early introduction: Exodus xxxi. The art is first mentioned in profane history 772 B. C., and is referred to the Egyptians.

Census. In the Roman polity, a general estimate of every man's estate and personal effects was delivered to the Government, on oath, every five years. Established by Tullius, 566 B. C.

Cheese. It is supposed that the English learned the art of making cheese from the Romans, about the Christian era.

Chess. The game of chess was known in 680 B. C., and its origin has been traced to India.

Chimneys were first attached to houses about the year 1200.

Chocolate was first introduced into Europe, from Mexico, in A. D. 1520.

Circulation of the blood discovered by Harvey, in 1610.

Clocks. The water clock was used at Rome, 158 B. C. Notched wheels were applied to them, about 140 B. C; the wheels originally being three feet in diameter. The earliest complete clock was made in the thirteenth century.

Coffee. Its use as a beverage is traced to the Parisians. It was first used in England in 1640.

Compass. The mariner's compass was invented in 1260. Its variation discovered by Columbus, in 1492.

Cotton planted in the United States in 1759.

Daguerreotypes were invented by M. Daguerre, of Paris, in 1839.

Forks were in use in the fifteenth century.

Glass. The discovery of glass took place in Syria. Glass is mentioned as being used among the Romans; and we know that it was used for windows before A. D. 79, as they have been found in the ruins of Pompeii. Glass windows were early in use in Venice, from whence they spread to Florence and Genoa, and about the eleventh century found their way to France, and ultimately passed into England, about the year 1200; they had not, however, become general even in the houses of the gentry, four hundred years later. The first glass house was established in England in 1557.

Hats were first made by a Swiss, at Paris, A. D. 1404.

Hours. The day began to be divided into hours from the year 293 B. C., when L. Papirius Cursor erected a sun-dial in the temple of Quirinus at Rome. Previously to the invention of water-clocks (*see* Clocks), 158 B. C., the time was called at Rome by public criers. The Chinese divide the day into twelve parts of two hours each. The Italians reckon twenty-four hours round, instead of two divisions of twelve hours each, as we do. In England, the measurement of time was alike uncertain and difficult: one expedient was by wax-candles, three inches burning an hour, and six wax-candles burning twenty-four hours: these candles were invented by Alfred, clocks and hour-glasses not being then known in England, A. D. 886.

Music-notes. The first six are said to have been invented by Guido Aretin, a Benedictine monk, A. D. 1025. The notes, as now used, were arranged in 1338.

Muskets were first used at the siege of Arras, in 1414.

Muslin, first worn in England in 1670.

Newspapers. The first newspaper was published in Venice, in 1536. The first in France, in 1631. The first in England, in 1663. The first in Ireland, in 1700. The first in the United States, in 1704.

Paper. The art of making paper is supposed to have originated in China, 170 B. C. It was first made of cotton, about A. D. 1000, and of rags in 1319.

Paper-hangings. Stamped paper for this purpose was first made in Spain and Holland, about A. D. 1555.

Pavements. The Carthaginians are said to be the first who paved their streets with stones. The Romans, in the time of Augustus, had many of their streets paved; but the Appian Way was a paved road, and was constructed 312 B. C.

Piano-forte. The first piano was made by Father Wood, an English monk, at Rome, about the year 1711.

Printing. The honor of this invention is divided between Faust, Guttenburg, and Schœffer. Guttenburg printed the earliest edition of the Bible, which was commenced in 1444, and finished in 1460. William Caxton set up the first press at Westminster. His first books were *The Game of Chess*, and *Tully's Offices*. The title of the latter is given as follows: "THE BOKE OF TULLE OF OLDE AGE *Emprynted by me simple persone* William Caxton *into Englysshe as the playsir solace and reverence of men grouing in to old age the xij day of August the yere of our Lord M. cccc. lxxxj.*"

Queen. The first queen invested with authority as a ruling sovereign, was Semiramis, queen and empress of Assyria, 2017 B. C.

Railroads. The first extensive enterprise of this kind was the Liverpool and Manchester (England) road; opened Sept. 15th, 1830.

Silk. Wrought silk was brought from Persia to Greece, 325 B. C. Silk was at first of the same value as gold, and was exchanged weight for weight.

Spectacles, invented by an Italian, in 1249.

Stereotyping, invented in Scotland, in 1785.

Stockings. It is related that in 1560, Queen Elizabeth was presented with a pair of knit silk stockings, and that she never wore cloth ones any more. The first pair of knit worsted stockings made in England, in 1564. The art of weaving stockings was invented in England, 1589. Cotton stockings were first made in 1730.

Tallow candles, first used for lights, in 1290.

Telegraph, invented by Morse, in 1832.

Telescopes, invented by Metius and Jansen, 1590.

Thermometer, Fahrenheit's, invented in 1726.

Vaccination was discovered by Dr. Jenner, in 1796.

Watches, first made in Germany, in 1447.

1419. Abbreviations are made use of in writing for the purpose of saving of time and trouble. They are sanctioned by custom, and therefore allowable. The following list includes some of the most important of these abbreviations, with their explanations.

A. B. (*Artium Baccalaureus.*) Bachelor of Arts.

A. D. (*Anno Domini.*) In the year of our Lord.

A. M. (*Ante Meridien.*) Before noon.

Ans. Answer.

Ark. Arkansas.

Acct. Account.

Ala. Alabama.

A. B. S. American Bible Society.

Atty. Attorney.

A. T. S. American Tract Society.

A. Y. M. Ancient York Masons.

B. C. Before Christ.

Bal. Balance.
B. V. (*Beata Virgo.*) Blessed Virgin.
Bbl. Barrel.
Cal. California.
Coll. College.
Cwt. Hundred Weight.
Cong. Congress.
Conn. Connecticut.
D. D. (*Divinitatis Doctor.*) Doctor of Divinity.
Do., or ditto. The same.
Dr. Doctor; Debtor.
Del. Delaware.
D. C. District of Columbia.
D. V. (*Deo volente.*) God willing.
Doll., or $. Dollar.
Ed. Editor. Edition.
E. G. (*Exempli Gratia.*) For example.
Eng. English. England.
Et. al. (*Et al.*) And others.
Etc., or &c. (*Et cetera.*) And so forth.
Fahr. Fahrenheit.
F. D. (*Fidei Defensor.*) Defender of the Faith.
Fl. Florida.
Gov. Governor.
Ga. Georgia.
G. B. Great Britain.
H., or hr. Hour.
H. R. House of Representatives.
H. B. M. His or Her Britannic Majesty.
Hon. Honorable.
Inst. The present month.
i. e. (*Id est.*) That is.
Ind. Indiana.
Incog. (*Incognito.*) Unknown.
Ills. Illinois.
Io. Iowa.
I. H. S. (*Jesus Hominum Salvator.*) Jesus the Saviour of men.
I. O. of O. F. Independent Order of Odd Fellows.
Jr. Junior.
J. P. Justice of the Peace.
Ky. Kentucky.
Kan. Kansas.
K. M. Knight of Malta.
Legis. Legislature.
lb. (*Libra.*) Pound in weight.
La. Louisiana.
L. S. (*Locus Sigilli.*) Place of the Seal.
LL. D. (*Legum Doctor.*) Doctor of Laws.
MS. Manuscript.
M. A. (*Artium Magister.*) Master of Arts.
M. D. (*Medicinæ Doctor.*) Doctor of Medicine.
Mus. D. Doctor of Music.
Md. Maryland.
Mass. Massachusetts.
Miss. Mississippi.
Me. Maine.
Minn. Minnesota.
Mo. Missouri.
M. C. Member of Congress.
Mich. Michigan.
N. B. (*Nota bene.*) Take notice.
N. C. North Carolina.
N. H. New Hampshire.
N. J. New Jersey.
N. Y. New York.
No. (*Numero.*) Number.
O. Ohio.
Or. Oregon.
Oz. Ounce.
O. U. A. M. Order of United American Mechanics.
Prof. Professor.
Ph. D. Doctor of Philosophy.
P. M. (*Post Meridiem.*) Afternoon.
Pro tem. (*Pro Tempore.*) For the time being.
Pa., or Penna. Pennsylvania.
Ps. Postscript.
Q. V. (*Quod vide.*) Which see.
Q. S. (*Quantum sufficit.*) A sufficient quantity.
Rev. Reverend.
R. R. Railroad
R. I. Rhode Island.
S. C. South Carolina.
Sr. Senior.
Tenn. Tennessee.
Tex. Texas.
U. S. United States.
Ult. (*Ultimo.*) Last, or the last month.
Va. Virginia.
Vt. Vermont.
Vs. (*Versus.*) Against.
Vid. (*Vide.*) Which see.
Viz. (*Videlicet.*) Namely.
Wis. Wisconsin.

1420. Cities of the United States having over Ten Thousand Inhabitants, Census of 1870.

New York, N. Y.	926,341
Philadelphia, Pa	674,022
Brooklyn, N. Y	396,300
St. Louis, Mo.	310,864
Chicago, Ill	298,983
Baltimore, Md	267,354
Boston, Mass.	250,526
Cincinnati, O	216,239
New Orleans, La.	191,322
San Francisco, Cal.	149,482
Buffalo, N. Y.	117,715
Washington, D. C.	109,204
Newark, N. J.	105,078
Louisville, Ky.	100.754
Cleveland, O.	92,846
Pittsburg, Pa.	86,235
Jersey City, N. J.	81,744
Detroit, Mich	79,580
Milwaukee, Wis.	71,499
Albany, N. Y.	69,422
Providence, R. I.	68,906
Rochester, N. Y	62,315
Alleghany, Pa.	53,181
Richmond, Va.	51,038
New Haven, Conn.	50,840
Charleston, S. C.	48,956
Troy, N. Y.	45,481
Syracuse, N. Y.	43,058
Worcester, Mass.	41,105
Lowell, Mass.	40,928
Memphis, Tenn	40,226
Cambridge, Mass.	39,634
Hartford, Conn.	37,180
Indianapolis, Ind	36,565
Scranton, Pa.	35,093
Reading, Pa.	33,932
Columbus, O.	33,745
Paterson, N. J.	33,582
Dayton, O.	32.579
Kansas City, Mo.	32.260
Mobile, Ala	32,184
Portland, Me	31,414
Wilmington, Del.	30,841
Lawrence, Mass.	28,921
Utica, N. Y.	28,804
Toledo, O.	28,546
Charlestown, Mass.	28,323
Lynn, Mass.	28,233
Fall River, Mass.	26,786
Springfield, Mass.	26.703
Nashville, Tenn.	25,872
Peoria, Ill	25,787
Covington, Ky.	24,505
Salem, Mass.	24.117
Quincy, Ill.	24,[illegible]3
Manchester, N. H.	23,536
Harrisburg, Pa.	23,109
Trenton, N. J.	22,874
Evansville, Ind.	22.830
New Bedford, Mass.	21,320
Oswego, N. Y.	20.910
Elizabeth, N. J.	20,838
Lancaster, Pa.	20,233
Savannah, Ga.	20,233
Poughkeepsie, N. Y.	20,080
Camden, N. J.	20.045
Davenport, Ind.	20,042
St. Paul, Minn.	20.031
Erie, Pa.	19,646
Wheeling, W. V.	19.282
Norfolk, Va.	19,256
Taunton, Mass.	18,629
Chelsea, Mass.	18.547
Dubuque, Iowa	18,404
Leavenworth, Kansas	18.049
Ft. Wayne, Ind.	17,718
Springfield, Ill.	17,365
Auburn, N. Y.	17,225
Newburg, N. Y.	17,014
Atlanta, Ga.	16.986
Norwich, Conn.	16,653
Sacramento, Cal.	16,484
Omaha, Nebraska	16.083
Elmira, N. Y.	15,863
Lockport, N. Y.	15.458
Gloucester, Mass.	15,387
Cohoes, N. Y.	15,357
New Brunswick, Me.	15,059
New Albany, Ind.	14,273
Hudson, N. Y.	14,135
Newburyport, Mass.	13,595
Binghamton, N. Y.	12,862
Concord, N. H.	12,241
Schenectady, N. Y.	11,026
Ogdensburg, N. Y.	10,076

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